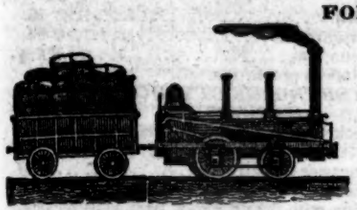
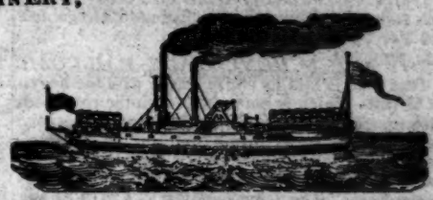
Cuyahoga Steam Furnace

AMERICAN RAILROAD JOURNAL,

AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY, AND MINES.





ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT FIVE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. II., No. 37.] SATURDAY, SEPTEMBER 12, 1846. [WHOLE No. 534, VOL. XIX.

BOSTON AND PROVIDENCE RAILROAD. Passenger Notice. Summer Arrangement. On and after Monday, April 6, 1846, the Passenger Trains will run as follows:

For New York—Night Line, via Stonington. Leaves Boston every day, but Sunday, at 5 p.m.

Accommodation Trains, leave Boston at 7½ a.m. and 4 p.m., and Providence at 8 a.m. and 4½ p.m.

Dedham trains, leave Boston at 8 a.m. 12½ m., 3½ p.m., and 6½ p.m. Leave Dedham at 7 a.m. and 9½ a.m. and 2½ and 5½ p.m.

Stoughton trains, leave Boston at 11½ a.m. and 5½ p.m. Leave Stoughton at 7·20 a.m. and 3½ p.m.

All baggage at the risk of the owners thereof.

31 1y W. RAYMOND LEE, *Sup't.*

BRANCH RAILROAD and STAGES CONnecting with the Boston and Providence Railroad.

Stages connect with the Accommodation trains at the Foxboro' Station, to and from Woonsocket. At the Seekonk Station, to and from Lonsdale, R. I. via Pawtucket. At the Sharon Station, to and from Walpole, Mass. And at Dedham Village Station, to and from Medford, via Medway, Mass. At Providence, to and from Bristol, via Warren, R. I.—Taunton, New Bedford and Fall River cars run in connection with the accommodation trains.

NORWICH AND WORCESTER RAILROAD. Summer Arrangement, commencing Monday, April 6, 1846.

Accommodation Trains, daily, except Sunday. Leave Norwich, at 6 a.m., and 4½ p.m. Leave Worcester, at 10 a.m., and 4½ p.m.

☞ The morning Accommodation Trains from Norwich, and from Worcester, connect with the trains of the Boston, and Worcester and Western railroads each way.

The Evening Accommodation Train from Worcester connects with the 1½ p.m. train from Boston.

New York Train via Long Island Railroad:

Leave Allyn's Point for Boston, about 1 p.m., daily, except Sunday.

Leave Worcester for New York, about 10 a.m., stopping at Webster, Danielsonville, and Norwich.

New York Train via Steamboat—Leave Norwich for Boston, every morning, except Monday, on the arrival of the stamboat from New York, stopping at Norwich and Danielsonville.

Leave Worcester for New York, upon the arrival of the train from Boston, at about 4½ p.m., daily, except Sunday, stopping at Webster, Danielsonville and Norwich.

Freight Trains daily each way, except Sunday.—Special contracts will be made for cargoes, or large quanties of freight, on application to the superintendent.

☞ *Fares are Less when paid for Tickets than when paid in the Cars.* ☜

39 1y J. W. STOWELL, Sup't.

BOSTON AND MAINE RAILROAD. Upper Route, Boston to Portland via, Reading, Andover, Haverhill, Exeter, Dover, Great Falls, South & North Berwick, Wells, Kennebunk and Saco.

Summer Arrangement, 1846.

On and after April 13, 1846, Passenger Trains will leave daily, (Sundays excepted,) as follows:

Boston for Portland at 7½ a.m. and 2½ p.m.

Boston for Great Falls at 7½ a.m., 2½ and 4½ p.m.

Boston for Haverhill at 7½ and 11½ a.m., 2½, 4½ and 6 p.m.

Boston for Reading at 7½, 9, and 11½ a.m., 2½, 4½, 6 and 8 p.m.

Portland for Boston at 7½ a.m., and 3 p.m.

Great Falls for Boston at 6½ and 9½ a.m., and 4½ p.m.

Haverhill for Boston at 6½, 8½, and 11 a.m., and 4 and 6½ p.m.

Reading for Boston at 6½, 7½ and 9½ a.m., 12 m., 1½, 5 and 7½ p.m.

The Depot in Boston is on Haymarket Square.

Passengers are not allowed to carry Baggage above $50 in value, and that *personal* Baggage, unless notice is given, and an extra amount paid, at the rate of the price of a Ticket for every $500 additional value.

CHAS. MINOT, *Super't.*

NEW YORK & HARLEM RAILROAD CO.—Summer Arrangement.

On and after Friday, May 1st, 1846, the cars will run as follows:

Leave City Hall for Yorkville, Harlem and Morrianna, at 7, 8, 9, 10 and 11 a. m., and at 1, 2, 3 30, 4 30, 5, 6, and 6 30 p. m.

Leave City Hall for Fordham and Williams' Bridge, at 7, 10 and 11 a. m., and at 2, 3 30, 5, and 6 30 p. m.

Leave City Hall for Hunt's Bridge, Bronx, Tuckahoe, Hart's Corners and White Plains, at 7 and 10 a. m., and at 2 and 5 p. m.

Leave Harlem and Yorkville, at 7 10, 8 10, 9, 10, 11 10 a. m., and at 12 40, 2, 3 10, 5 10, 5 30, 6 10, and 7 p. m.

Leave Williams' Bridge and Fordham, at 6 45, 7 45, and 10 45 a. m., and at 12 15, 2 45, 4 45, and 5 45 p. m.

Leave White Plains, at 7 and 10 a. m., and at 2 and 5 p. m.

The freight train will leave the City Hall at 1 o'clock, p. m., and leave White Plains at 1 o'clock in the morning.

On Sundays, the White Plains train will leave the City Hall at 7 a. m. and 5 30 p. m.; will leave White Plains at 7 a. m. and 6 p. m.

On Sundays, the Harlem and Williams Bridge trains will be regulated according to the state of the weather. 18

SUMMER ARRANGEMENT.—NEW YORK AND ERIE RAILROAD LINE, from April 1st until further notice, will run daily (Sundays excepted) between the city of New York and Middletown Goshen, and intermediate places, as follows:

FOR PASSENGERS—

Leave New York at 7 A.M. and 4 P.M.
" Middletown at 6½ A.M. and 5½ P.M.

FARE REDUCED to $1 25 to Middletown—way in proportion. Breakfast, supper and berths can be had on the steamboat.

FOR FREIGHT—

Leave New York at 5 P.M.
" Middletown at 12 M.

The names of the consignee and of the station where to be left, must be distinctly marked upon each article shipped. Freight not received after 5 P.M. in New York.

Apply to J. F. Clarkson, agent, at office corner of Duane and West sts. H. C. SEYMOUR, Sup't.

March 25th, 1846.

Stages run daily from Middletown, on the arrival of the afternoon train, to Milford, Carbondale, Honesdale, Montrose, Towanda, Owego, and West; also to Monticello, Windsor, Binghamton, Ithaca, etc., etc. Agent on board. 13 tf

BOSTON AND ALBANY.—WESTERN RAILROAD.—Fare Reduced.

1846..Spring Arrangement..1846

Commencing April 1st.

Passenger trains leave daily, Sundays excepted—

Boston	7½ p. m.	and 4 p. m.	for Albany.
Albany	6½ "	and 2½ "	for Boston.
Springfield	7 "	and 1 "	for Albany.
Springfield	7 "	and 1½ "	for Boston.

Boston, Albany and Troy:

Leave Boston at 7½ a. m., arrive at Springfield at 12 m., dine, leave at 1 p. m., and reach Albany at 6½ p. m.

Leave Boston at 4 p. m., arrive at Springfield at 8 p. m., lodge, leave next morning at 7, and arrive at Albany at 12½ m.

Leave Albany at 6½ a. m., arrive at Springfield at ½ m., dine, leave at 1½ p. m., and arrive at Boston 6½ p. m.

Leave Albany at 2½ p. m., arrive at Springfield at 8½ p. m., lodge, leave next morning at 7, and arrive at Boston at 12 m.

The trains of the Troy and Greenbush railroad connect with all the above trains at Greenbush.

Fare from Boston to Albany, $5; fare from Springfield to Boston or Albany, $2 75.

Merchandize trains run daily (Sundays excepted) between Boston, Albany, Troy, Hudson, Northampton, Hartford, etc.

For further information apply to C. A. Read, agent, 27 State street, Boston, or to S. Witt, agent, Albany. JAMES BARNES,

Superintent and Engineer.

Western Railroad Office,
Springfield, April 1, 1846. 14 1y

TROY RAILROADS.—IMPORTANT NOTICE.—Troy and Greenbush Railroad, forming a continuous track from Boston to Buffalo and Saratoga Springs.

This road is new, and laid with the heaviest iron H rail. Trains will always be run on this road connecting at Greenbush each way with the trains to and from *Boston* and intermediate places, leaving Greenbush daily at 1½ p.m. and 6 p.m., or on arrival of the trains from Boston; leave Troy at 7½ a.m. and 4½ p.m., or to connect with trains to *Boston*

Trains also run hourly on this road between Troy and Albany. Running time between Greenbush and Troy, 15 minutes.

TROY AND SCHENECTADY RAILROAD.

This road is laid its entire length with the heaviest H rail—which is not the fact with the road from Albany. Trains will always be run on this road connecting each way, to and from Buffalo and intermediate places. Leave Troy for Buffalo at 7½ a.m. and 1 p.m. and 6½ p.m., or to connect with the trains for the west; leave Schenectady at 2½ a.m., 8½ a.m., 1 p.m. and 3½ p.m., or on arrival of the trains from Buffalo and intermediate places.

TROY AND SARATOGA RAILROAD.

THE ONLY DIRECT ROUTE.

No change of passenger, baggage or other cars on this route. Cars leave Troy for Ballston, Saratoga Springs, Lake George and White Hall at 7½ a.m., (arriving one hour in advance of the train from Albany,) and at 3½ p.m. Returning, leave Saratoga at 9 a.m. and 3½ p.m., (reaching Troy in time for the evening boats to New York.) Cars also leave Troy for the Burrough at 3½ p.m. and 7 p.m., connecting with packet boats for the north. This takes passengers from New York and Boston to Montreal in 44 hours.

N.B. Travellers will find the routes through Troy most convenient and economical, and as expeditious as any other. The steamboats to and from New York land within a few steps of the railroad office, and passengers are taken up and landed by the different railroad lines at the doors of principal hotels, thus saving all necessity for, and annoyance from, hack drivers, cabmen, runners, etc.

Aug. 3, 1846. 1y 32

THE BEST RAILROAD ROUTE TO THE Lake and Buffalo, from Cincinnati.

Take Cars to Xenia, 65 miles; take Stage to Mansfield, 88 miles; thence by Cars to Sandusky, 56 miles to the Lake; thence Steamboat to Buffalo, 230 miles.

Fare from Cincinnati to Sandusky	$8 00
" " Sandusky to Buffalo, Cabin	6 00
" " " " Steerage	4 50

Fare by this route, although the cheapest across the state, will be reduced in a short time, railroad lengthened, and speed increased.

Leave Cincinnati in the morning, arrive at Columbus at night.

Leave Columbus in the morning, arrive at Sandusky same day.

Leave Sandusky, by Boat, in the morning, arrive at Buffalo next morning in time for the Cars north and east for Niagara Falls, Canada, Saratoga Springs, Troy, Albany, Boston, New York, Washington, or Philadelphia.

Passengers should not omit to pay their fare through from Cincinnati to Sandusky, or from Columbus to Sandusky via Mansfield; as this route is the only one that secures 56 miles [this road is run over in 2h. 50m.,] most railroad which is new, and is the shortest, cheapest and most expeditious across the state.

Fares on the New York railroads are about to be reduced.

B. HIGGINS, *Sup't, etc.*
M. & S. C. R. R. Co.

Sandusky, Ohio.

RAILROAD IRON.—THE "MONTOUR Iron Company," Danville, Pa., is prepared to execute orders for the heavy Rail Bars of any pattern now in use, in this country or in Europe, and equal in every respect in point of quality. Apply to MURDOCK, LEAVITT & CO., *Agents.*

Corner of Cedar and Greenwich Sts. 48 1y

NEW RAILROAD ROUTE FROM BUFFALO to Cincinnati.

Passengers destined for Columbus and Cincinnati,

O., Louisville, Ky., St. Louis, Mo., Memphis, Tenn., Vicksburg, Natches, New Orleans, and all intermediate ports, will find a new, and the most expeditious and comfortable Route, by taking Steamboats at Buffalo, landing at Sandusky City, Ohio, distance ..... 230 miles.

From thence by Cars, over the Mansfield Railroad which is new and just opened [laid with heavy Iron,] to Mansfield, distance	56 "
Thence by Stage via Columbus to Xenia over gravel and Macadamized Road, (the best in the state,) in new coaches, distance	88 "
Thence, over the Little Miami Railroad, from Xenia to Cincinnati, distance	65 "

TIME.

From Buffalo to Sandusky	24 hours.
Leave Sandusky 5 a.m. to Columbus	14 "
From Columbus to Cincinnati	15 "

Or say 30 hours from Sandusky to Cincinnati over this route, including delays.

FARE.

From Buffalo to Sandusky, Cabin	$6 00
" " " Steerage	3 00
" Sandusky to Columbus	4 50
" " *through* to Cincinnati	8 00

Passengers should not omit to pay their fare *through* from Sandusky City to Cincinnati and take receipts availing themselves of the benefit of a contract existing between the said Railroad and Stage Co's, securing 121 miles travel by good Railroad and 88 miles by Stage, in crossing from Lake Erie to the Ohio river, in the space of 30 hours.

Passengers destined for St. Louis, or any point below on the Mississippi, will save by taking this route, from 4 to 6 days time and travel, and nearly half the expense, over the Chicago and Peoria route to the above places.

Fare by this route, although the cheapest, will in a short time be reduced, Railroad lengthened, and speed increased.

B. HIGGINS, *Sup't, etc.*
M. & S. C. R. R. Co.

Sandusky City, Ohio.

BALTIMORE AND OHIO RAILROAD. MAIN STEM. The Train carrying the Great Western Mail leaves Baltimore every morning at 7½ and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, conncting daily each way with—the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry — with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5½ P. M. Fare between those points $7, and 4 cents per mile for less distances. Fare through to Wheeling $11 and time about 36 hours, to Pittsburgh $10, and time about 32 hours. Through tickets from Philadelphia to Wheeling $13, to Pittsburgh $12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5½ P. M from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare $1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13y1

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80 RAILROAD IRON.

Tons	2½	x	½	Flat Bar Railroad Iron.			
50	"	1½	x	½	"	"	"
8	"	2½	x	½	"	"	"
15	"	1	x	¼	"	"	"

with Spikes and Plates, for sale by
A. & G. RALSTON & CO.,
1m30 4 South Front st., Philadelphia.

BALTIMORE AND SUSQUEHANNA Railroad.—Reduction of Fare. Morning and Afternoon Trains between Baltimore and York.—The Passenger trains run daily, except Sunday, as follows:

Leaves Baltimore at	9 a.m. and 3½ p.m.
Arrives at	9 a.m. and 6½ p.m.
Leaves York at	5 a.m. and 3 p.m.
Arrives at	12½ p.m. and 8 p.m.
Leaves York for Columbia at	1½ p.m. and 8 a.m.
Leaves Columbia for York at	8 a.m. and 2 p.m.

FARE.

Fare to York	$1 50
" Wrightsville	2 00
" Columbia	2 12½

Way points in proportion.

PITTSBURG, GETTYSBURG AND HARRISBURG.

Through tickets to Pittsburg via stage to Harrisburg	$9
Or via Lancaster by railroad	10
Through tickets to Harrisburg or Gettysburg	3

In connection with the afternoon train at 3½ o'clock, a horse car is run to Green Spring and Owing's Mill, arriving at the Mills at ..... 5½ p.m.
Returning, leaves Owing's Mills at ..... 7 a.m.

D. C. H. BORDLEY, *Sup't.*
31 1y Ticket Office, 63 North st.

LEXINGTON AND OHIO RAILROAD. Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m.

Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare $1·25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and ma. 9. from Frankfort, other hours as above.

35ly

SOUTH CAROLINA RAILROAD.—A Passenger Train runs daily from Charleston, on the arrival of the boats from Wilmington, N. C., in connection with trains on the Georgia, and Western and Atlantic Railroads—and by stage lines and steamers connects with the Montgomery and West Point, and the Tuscumbia Railroad in N. Alabama.

Fare through from Charleston to Montgomery daily	$26 50
Fare through from Charleston to Huntsville, Decatur and Tuscumbia	22 00

The South Carolina Railroad Co. engage to receive merchandize consigned to their order, and to forward the same to any point on their road; and to the different stations on the Georgia and Western and Atlantic railroad; and to Montgomery, Ala., by the West Point and Montgomery Railroad.

1y25 JOHN KING, Jr, *Agent.*

CENTRAL RAILROAD—FROM SAVAN-nah to Macon. Distance 190 miles.

This Road is open for the transportation of Passengers and Freight. Rates of Passage, $8 00. Freight—

On weight goods generally	50 cts. per hundred.
On measurement goods	13 cts. per cubic ft.
On brls. wet (except molasses and oil)	$1 50 per barrel.
On brls. dry (except lime)	80 cts. per barrel.
On iron in pigs or bars, castings for mills, and unboxed machinery	40 cts. per hundred.
On hhds. and pipes of liquor, not over 120 gallons	$5 00 per hhd.
On molasses and oil	$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE,
40 Gen'l. Sup't. Transportation.

MANUFACTURE OF PATENT WIRE Rope and Cables for Inclined Planes, Standing Ship Rigging, Mines, Cranes, Tillers etc., by JOHN A. ROEBLING, *Civil Engineer*, Pittsburgh, Pa.

These Ropes are in successful operation on the planes of the Portage Railroad in Pennsylvania, on the Public Slips, on Ferries and in Mines. The first rope put upon Plane No. 3, Portage Railrord, has now run 4 seasons, and is still in good condition. 2v19 1y

CENTRAL AND MACON AND WESTERN Railroads, Ga.—These Roads with the Western and Atlantic Railroad of the State of Georgia, form a continuous line from Savannah to Oothcaloga, Ga., of 371 miles, viz:

	Miles.
Savannah to Macon—Central Railroad	190
Macon to Atlanta—Macon and Western	101
Atlanta to Oothcaloga—Western and Atlaniic	80

Goods will be carried from Savannah to Atlanta and Oothcaloga, at the following rates, viz:

	To Atlanta.	To Oothcaloga.
On Weight Goods—Sugar, Coffee, Liquor, Bagging, Rope, Butter, Cheese, Tobacco, Leather, Hides, Cotton Yarns, Copper, Tin, Bar & Sheet Iron, Hollow Ware & Castings	$0 50	$0 75
Flour, Rice, Bacon in Casks or boxes, Pork, Beef, Fish, Lard, Tallow, Beeswax, Mill Gearing, Pig Iron and Grind Stones	0 50	0 62½
On Measurement Goods—Boxes of Hats, Bonnets and Furniture, per cubic foot	0 20	0 26
Boxes and Bales of Dry Goods, Saddlery, Glass, Paints, Drugs and Confectionary, per cubic foot	0 20	pr. 100 lbs. 35
Crockery, per cubic foot	0 15	" " 35
Molasses and Oil, per hhd., (smaller casks in proportion)	9 00	12 50
Ploughs, (large,) Cultivators, Corn Shellers, and Straw Cutters, each	1 25	1 50
Ploughs, (small,) and Wheelbarrows	0 80	1 05
Salt, per Liverpool Sack	0 70	0 95

Passage—Savannah to Atlanta, $10; Children, under 12 years of age, half price, Savannah to Macon, $7.

☞ Goods consigned to the subscriber will be forwarded free of Commissions.

☞ Freight may be paid at Savannah, Atlanta or Oothcaloga.

F. WINTER, *Forwarding Agent, C. R. R.*
Savannah, Aug. 15th, 1846. 1y34

GEORGIA RAILROAD. FROM AUGUSTA to ATLANTA—171 MILES. AND WESTERN AND ATLANTIC RAILROAD FROM ATLANTA TO OOTHCALOGA, 80 MILES.

This Road in connection with the South Carolina Railroad and Western and Atlantic Railroad now forms a continuous line, 388 miles in length, from Charleston to Oothcaloga on the Oostenaula River, in Cass Co., Georgia.

Rates of Freight, and Passage from Augusta to Oothcaloga.

On Boxes of Hats, Bonnets, and Furniture per foot	16 cts.
" Dry goods, shoes, saddlery, drugs, etc., per 100 lbs.	95 "
" Sugar, coffee, iron, hardware, etc.	65 "
" Flour, bacon, mill machinery, grindstones, etc.	33½ "
" Molasses, per hogshead $9·50; salt per bus.	20 "
" Ploughs and cornshellers, each	75 "

Passengers $10·50; children under 12 years of age half price.

Passengers to Atlanta, head of Ga. Railroad, $7.

German or other emigrants, in lots of 30 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight may be paid at Augusta, Atlanta, or Oothcaloga.

J. EDGAR THOMSON,
Ch. Eng. and Gen. Agent.
Augusta, Oct. 21 1845 *44 1y

BOILER IRON.—55 TONS ASSORTED Boiler Iron, Nos. 3, 4 and 5, and of widths of 26, 32 and 36 inches, random lengths, in store, and for sale by A. & G. RALSTON & CO.,
1m30 4 South Front st., Philadelphia.

BACK VOLUMES OF THE RAILROAD JOURNAL for sale at the office, No. 23 Chambers street

THE WESTERN AND ATLANTIC Railroad.—This Road is now in operation to Oothcaloga, a distance of 80 miles, and connects daily (Sundays excepted) with the Georgia Railroad.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warrenton, Huntsville, Decatur and Tuscumbia, Alabama, and Memphis, Tennessee.

On the same days, the stages leave Oothcaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARNETT,
Chief Engineer.
Atlanta, Georgia, April 16th, 1846. 1y1

LITTLE MIAMI RAILROAD.—1846.— Summer Arrangement.

Two passenger trains daily.

On and after Tuesday, May 5th, until further notice, two passenger trains will be run—leaving Cincinnati daily (Sundays excepted) at 9 a. m. and 1½ p. m. Returning, will leave Xenia at 5 o'clock 50 min. a. m., and 2 o'clock 40 min. p.m.

On Sundays, but one train will be run—leaving Cincinnati at 9, and Xenia at 5 50 min. a. m.

Both trains connect with Neil, Moore & Co.'s daily line of stages to Columbus, Zanesville, Wheeling, Cleveland, Sandusky City and Springfield.

Tickets may be procured at the depot on East Front street.

The company will not be responsible for baggage beyond fifty dollars in value, unless the same is returned to the conductor or agent, and freight paid at the rate of a passage for every $500 in value above that amount. W. H. CLEMENT,
19 Superintendent.

GREAT SOUTHERN MAIL LINE! VIA Washington city, Richmond, Petersburg, Weldon and Charleston, S. C., direct to New Orleans. The only Line which carries the Great Southern Mail, and Twenty-four Hours in advance of Bay Line, leaving Baltimore same day.

Passengers leaving New York at 4½ P.M., Philadelphia at 10 P.M., and Baltimore at 6½ A.M., proceed without delay at any point, by this line, reaching Richmond in *eleven*, Petersburg in *thirteen and a half hours*, and Charleston, S. C., in *two days* from Baltimore.

Fare from Baltimore to Charleston	$21 00
" " " Richmond	6 60

For Tickets, or further information, apply at the *Southern Ticket Office*, adjoining the *Washington Railroad Office*, Pratt street, Baltimore, to
1y14 STOCTON & FALLS, Agents.

MARAMEC IRON WORKS FOR SALE. By Authority of a power of Attorney from Messrs. Massey and James, I will sell at Public Auction, at the Court House in the city of St. Louis, on *MONDAY, the 2nd day of November next*, the above named valuable IRON WORKS—together with **8,000** ACRES OF LAND, more or less, on which there are several *valuable and productive Farms* open and in cultivation.

The Maramec Iron Works are situated at the Maramec Big Spring, in Crawford Co., Mo., and consist of **1** BLAST FURNACE; **1** AIR FURNACE; **1** REFINING FORGE, with large Hammer for making Blooms and Anchonies;
2 CHEFFERY FORGES for Drawing Bar Iron;
1 ROLLING MILL for Rolling Blooms into Bars and Plates;
1 SAW AND **1** GRIST MILL,

All within 300 Yards of the head of the spring. There are 2 large frame Coal Houses, and all other Buildings necessary, such as Shops and Houses for the workmen.

This Spring is one of the largest in Missouri, discharging at the lowest time 7,000 cubic feet of water per minute. The Ore Bank from which the Ore has been heretofore taken is about 600 yards from the furnace; it is the *Specular Iron Ore*, the best for making Bar Iron, and the quantity inexhaustible.—It is an Iron Mountain, 400 feet above the level of the Maramec River; the ore is entirely uncovered, and there is an easy descent and a good road from it to the furnace.

The lands have been carefully selected by one of the owners with a view to the interest and convenience of the Works, and are situated principally on the Maramec River and its tributaries, embracing the best bottom lands and water powers. The following detatched tracts, comprized in the above quantity, were selected for the advantages they possess;

183½ ACRES in T. 40 N. of R. 8 W. in Sec. 3, near Wherry's Mill, in Osage Co.; entered to secure a very valuable Mill power on the Branca Spring and a good landing on the Gasconade River.

80 ACRES on Benton's Creek, 12 miles from the Works; entered to secure an extensive and valuable Ore Bank 2½ miles from the Maramec, at a point where there is ample water power.

320 ACRES in T. 38 N. of R. 4 W. in Sec. 22 and 28, affording an extensive and valuable water power on the Maramec river.

160 ACRES in T. 37 N. of R. 3 W. in Sec. 4, embraces two inexhaustible and valuable Ore Banks and is 1½ miles from Water power sufficient for a furnace and Grist Mill, and is distant 6 miles from the above site on the Maramec.

80 ACRES in T. 37 N. of R. 8 W. in Sec. 33, including an extensive bank of excellent Ore, and distant 1½ miles from water power on the waters of the Gasconade River, in Pulaski Co., sufficient for Furnace and Mills. All those Banks are of the same kind as the one at the Works, and deemed inexhaustible.

1 LOT, containing nearly one Acre, on the South Bank of the Missouri River, 4 Miles above the town of Hermann, purchased for a warehouse and landing, and is one of the best landings on the River.

The lands above described are well timbered, and have been selected with a view to have an ample supply of wood and coal, for fences, building and other purposes. There are on the land valuable quarries of Limestone well adapted for Fluxes for the Ore, and also good quarries of Rock suitable for building. There are also on the land a great number the finest kind of Springs. A large portion of the lands are bottoms well adapted to the production of Corn and other crops. The Works are situated in a very pleasant and healthful part of the country. The Maramec ore is believed to be admirably adapted to the manufacture of steel.

A further description of the property at this time is considered unnecessary, as those wishing to purchase will no doubt view the property, which will be shown by the Agent, residing at the works.

The terms of payment required will be one-third of the purchase money in hand and the balance in three equal annual payments, secured by mortgage on all the property.

A more particular description of the property will be given, and further conditions of the sale made known, on the day of sale.

JNO. F. ARMSTRONG, Agent.
St. Louis, June 6, 1846.

☞ The Louisville, (Ky.,) Journal, Cincinnati Gazette, Tribune (Portsmouth, O.,) Nashville Whig, Pittsburg Gazette, National Intelligencer, United States Gazette, (Phila.) Railroad Journal (N. Y.,) acd Boston Atlas, will publish the above once a week until the 20th day of October next, and send bills to this office for settlement, and *mark price on first paper.* 18t25

TO RAILROAD COMPANIES AND MANUFACTURERS of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE,
ja45 N. E. cor. 12th and Market sts., Philad., Pa.

RICH & CO'S IMPROVED PATENT SALAMANDER SAFES.

Warranted free from dampness, as well as fire and thief proof.

Particular attention is invited to the following certificates, which speak for themselves:

TEST No. 10.

Certificate from Mr. Silas C. Field, of Vicksburgh, Mississippi.

On the morning of the 14th ult., the store owned and occupied by me in this city, was, with its contents, entirely consumed by fire. My stock of goods consisted of oil, rosin, lard, pork, sugar, molasses, liquors, and other articles of a combustible nature, in the midst of which was one of Rich's Improved Patent Salamander Safes, which I purchased last October of Mr. Isaac Bridge, New Orleans, and which contained my books and papers. This safe was red hot, and did not cool sufficiently to be opened until 16 hours after it was taken from the ruins. At the expiration of that time it was unlocked, when its contents proved to be entirely uninjured, and not even discolored. I deem this test sufficient to show that the high reputation enjoyed by Rich's Safes is well merited. S. C. FIELD.

Vicksburgh, Miss., March 9th, 1846.

Certificate from Judge Battaile, of Benton, Mississippi.

In October last I purchased one of Rich's Improved Salamander Safes, which was in the fire at the burning of my law office, and several adjoining buildings in this place, on the 17th of November last, at about half-past one o'clock A. M. of that day. The building was entirely consumed; and I take pleasure in stating that my papers in said safe were preserved without injury. A receipt book which was in said safe, had the glue drawn out of its leather back by the heat, and the back broken; but the leaves of the book, and the writing thereon, were entirely uninjured; and some of the writing which was of blue ink, was also left wholly uneffaced and not in the least faded. Said safe was by the fire heated perfectly red hot, and I do not hesitate to say, that said safe is a perfect security against fire. But the safe tumbled over during the fire, and being heated red hot, the outer sheeting of the door became pressed in, and the bolts of the lock bent, so that it could not be unlocked, and I had to have it broken open. JOHN BATTAILE.

Benton, Miss., December 27, 1845.

Still other Tests in the Great Fire of July 19, 1845.

The undersigned purchased of A. S. Martin, No. 138½ Water street, one of Rich's Improved Patent Salamander Safes, which was in our store, No. 54 Exchange place. The store was entirely consumed in the great conflagration on the morning of the 19th inst. The safe was taken from the ruins 52 hours after, and on opening it, the books and papers were found entirely uninjured by fire, and only slightly wet—the leather on some of the books was parched by the extreme heat. RICHARDS & CRONKHITE.

New York, 21st July, 1845.

One of Rich's Improved Salamander Safes, which I purchased on the 2d of June last of A. S. Marvin, 138½ Water street, agent for the manufacturer, was exposed to the most intense heat during the late dreadful conflagration. The store which I occupied, No. 46 Broad street, was entirely consumed; the safe fell from the 2d story, about 15 feet, into the cellar, and remained there 14 nours, and when found, I am told, and from its appearance afterwards, should judge that it had been heated to a red heat. On opening it, the books and papers were found not to have been touched by fire. I deem this ordeal sufficient to confirm fully the reputation that Rich's safe has already obtained for preserving its contents against all hazards. (Signed,)

WM. BLOODGOOD.

New York, 21st July, 1845.

The above safes are finished in the neatest manner, and can be made to order at short notice, of any size and pattern, and fitted to contain plate, jewelry, etc. Prices from $50 to $500 each. For sale by

A. S. MARVIN, General Agent,
138½ Water st., N. Y.

Also by Isaac Bridge 76 Magazine street, New Orleans.

Also by Lewis M Hatch, 120 Meeting street Charleston, S. C. 16 tf

CUSHMAN'S COMPOUND IRON RAILS etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc. —respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

W. Mc. C. CUSHMAN, *Civil Engineer*,
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applicaitons must be post paid.

RAILROAD IRON AND LOCOMOTIVE Tyres imported to order and constantly on hand by A. & G. RALSTON

Mar. 20tf 4 South Front St., Philadelphia.

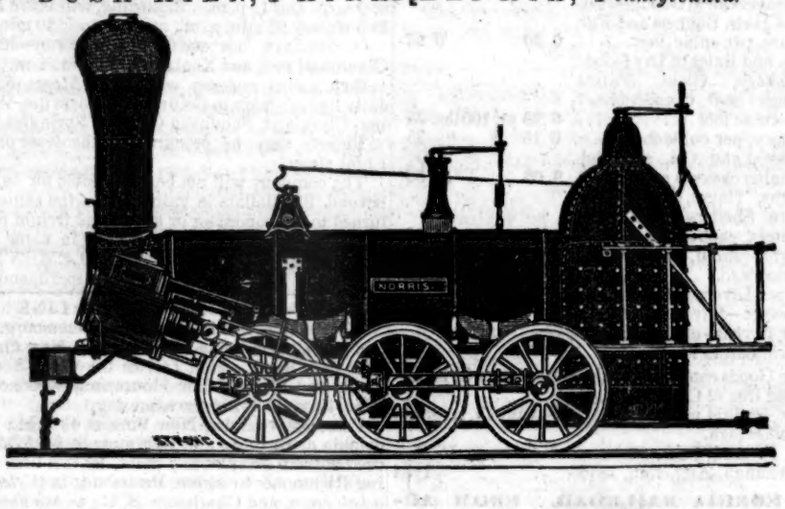
THE NEWCASTLE MANUFACTURING Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

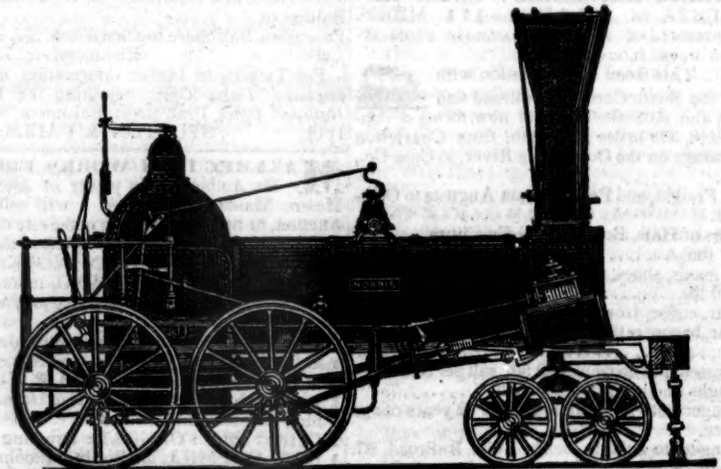
The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention. ANDREW C. GRAY,

a45 President of the Newcastle Manuf. Co.

NORRIS' LOCOMOTIVE WORKS.

BUSH HILL, PHILADELPHIA, Pennsylvania.





MANUFACTURE their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15	inches	Diameter of	Cylinder,	× 20	inches	Stroke.
"	2,	14	"	"	"	× 24	"	"
"	3,	14½	"	"	"	× 20	"	"
"	4,	12½	"	"	"	× 20	"	"
"	5,	11½	"	"	"	× 20	"	"
"	6,	10½	"	"	"	× 18	"	"

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion.

Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars

NORRIS, BROTHERS.

Traffic on Short Roads.

It is not often that we find railroad statistics of such value, and so well digested, as in the following notice on the influence of proximity in increasing the travel on railroads. We find it in a report of the West Flanders railroad company. The calculations are partly from government returns, but mainly from a recent Belgian work of M. Desart, government engineer and divisional inspector.

The statistics are drawn from Belgian experience, but are universally applicable. They establish, beyond a doubt, the profitable character of short roads, between places of moderate size.

In our own country, experience has shown that this doctrine is correct: some of our long lines receive the bulk of their income from short portions, while most of the short roads do an excellent business. This is partly the cause of the remarkable success of the New England roads—the reader cannot fail to notice the striking resemblance between their routes and the Belgian. Particularly is this to be noted in the state of Vermont, where the new lines connect many villages within but a few miles of each other—it needs no great city to make a road profitable in the midst of a population thus distributed.

"The statements worked out from the government traffic returns establish beyond all doubt the following principle, viz: that the number of passengers between two towns connected by a railway, does not depend only on the population or commercial importance of those towns, but most materially on the distance between them. Thus the number of passengers will be greater on a line connecting a succession of small towns and villages, situated as they generally are in England and Belgium, than on a line of equal length connecting two large towns.—In proof of this, during the year 1845, Brussels sent,

Passengers.		Kilometres.			Miles.
57,726	to Vilvorde....	10 distant,	about		6¼
76,232	to Malines.....	20	"	"	12½
94,698	to Antwerp	44	"	"	27½
38,359	to Louvain....	44	"	"	27½
14,717	to Termonde ..	47	"	"	29½
11,000	to Tirlemont ..	62	"	"	38½
39,443	to Ghent.....	76	"	"	47½
4,732	to St. Trond...	86	"	"	53½
21,322	to Liege	114	"	"	70½
4,147	to Courtrai....	120	"	"	74½
6,177	to Bruges.....	121	"	"	75
2,200	to Verviers....	139	"	"	86½
3,283	to Tournay....	151	"	"	93½

"Brussels, it is shown, sent,

57,726 to Vilvorde, a town of 4,000 inhabitants, and of no commercial importance, but only 10 kilometres [about 6¼ miles] distant.

76,232 to Malines, a town with a population of 24,000, and of very small commercial importance, but only 20 kilometres from Brussels [about 12½ miles.)

38,359 to Louvain, a town quite as important as Malines, with equal population, but 44 kilometres [about 27½ miles] from Brussels —more than twice the distance between Brussels and Malines.

39,443 to Ghent, a town with a population of 96,000 inhabitants, and of great commercial importance.

"The number of passengers are thus about the same between Brussels and Ghent as between Brussels and Louvain. It has already been observed that Louvain is unfavorably situated with regard to distance, being 44 kilometres [about 27½ miles] from Brussels. The number of passengers between Brussels and Ghent was not above half as many as between Brussels and Malines. The reason is that Ghent is 76 kilometres [about 47½ miles] from Brussels, and Malines only 20 [about 6½ miles.]

"Again, in 1845, Malines [24,000 inhabitants] sent,

Passengers.		Kilometres.			Miles.
32,448	to Antwerp....	24 distant,	about		15
5,218	to Termonde...	27	"	"	16¾
7,028	to Ghent	55	"	"	34½
757	to Bruges	100	"	"	62

"But what is more striking is, that Ghent, with its population of 96,000, and great commercial importance, should in the year 1845 have sent only 13,439 passengers to Antwerp, a town of 78,000 inhabitants, and also of great commercial importance—these two towns being, as M. Desart remarks, the Manchester and Liverpool of Belgium.

"On the other hand, Malines, comparatively unimportant, sent 32,448 passengers to Antwerp.

"The explanation is, that Ghent is 79 kilometres [about 49¼ miles] from Antwerp, and the railway most circuitous; and Malines is distant only 24 kilometres [about 15 miles.]

"As a further illustration: suppose Ghent, which is ten times as important a place as Termonde, to be at the same distance from Brussels as Termonde is, viz: 47 kilometres [about 29¼ miles,] Brussels ought to send ten times as many passengers to Ghent as it now does to Termonde, that is to say, 14,717 multiplied by 10—or 147,170; whereas, in 1845, Brussels, with its population of 140,000, and its importance as capital of Belgium, sent only 39,443 passengers to Ghent.

"Such a result can only be accounted for by the respective distances between the places connected by the State railway.

"M. Desart has reduced these facts to a system. By calculations founded on the population and situation of the towns and villages connected by the government railways, and on the number of passengers moving between the different stations, he has succeeded in forming a table, showing the average number of passengers on the state lines from 2 kilometres [about 1¼ mile] to 250 kilometres distance [about 155½ miles.]

"According to this table, which is drawn up with great care, the number of passengers goes on increasing at a very rapid rate from 2 to 9 kilometres [between 1 and 5 miles.]

"The climax is at 9 kilometres [about 5½ miles.] From that distance the number diminishes.

"When the distance between two places is excessively small, the number of passengers by railway is also small.

"The most productive distance consequently is from 8 to 10 kil. [between 5 and 6 miles]." * * *

"In further illustration of the principle, let a small station on the Louvain Liege line, Waremme for instance, be taken.

"Waremme is 5½ leagues from Liege. Its population is 1,589 inhabitants. It has four fairs a year, chiefly frequented by horse dealers.

"In 1845, 23,621 passengers left Waremme. Of these,

947	left for	Brussels....	89 kil. distant,	55¼	miles.
154	"	Malines....	69 "	43	"
198	"	Antwerp....	93 "	57¼	"
58	"	Ghent.....	127 "	79	"
544	"	Louvain....	45 "	28	"
1,784	"	Tirlemont ..	25 "	15½	"
1,809	"	Landen.....	14 "	8¾	"
1,695	"	St. Trond...	25 "	15½	"
1,584	"	Fexhe.....	11 "	6¾	"
4,397	"	Ans	24 "	15	"
9,772	"	Liege	20 "	18½	"

395 for all the remaining stations between Liege and the Prussian frontier.

"Thus of 23,621 tickets delivered at Waremme, a place of 1,589 inhabitants, only 1,357 were for Brussels, Antwerp, Ghent and Malines.

1,357 for Brussels, Ghent, Antwerp and Malines.
544 Louvain.
1,784 Tirlemont, more than three times as many as for Louvain, and nearly equal to the preceding five towns.
1,809 Landen.
3,399 Fexhe and St. Trond.
4,397 Ans.
9,772 Liege.

"These returns strongly illustrate the principle before stated. Waremme is a small place; population under 2,000; the inhabitants are employed in agricultural pursuits." * * *

"Tirlemont has a population of 8,362. It is 3½ leagues [about 10 miles] from Louvain, the same distance from St. Trond, and 12½ leagues [about 25 miles] from Brussels.

"In 1845, 51,405 passengers left Tirlemont. Of these,

10,688	left for	Brussels....	62 kil. distant,	38½	miles.
2,077	"	Antwerp....	66 "	41	"
15,569	"	Louvain....	18 "	11	"
5,328	"	Landen.....	13 "	8	"
3,709	"	St. Trond...	24 "	15	"
3,682	"	Liege	47 "	29½	"

"As a proof of the tendency of the country people to travel by railway, the village of Haecht may be referred to. The population is 2,000, and it lies on the line between Louvain and Malines. Haecht is 2½ leagues from Louvain, about the same distance from Malines, and 5½ leagues from Brussels.

"In 1845, 14,103 passengers left Haecht, viz:

3,599 for Brussels..... 31 kil. distant, 19¼ miles.
4,835 for Malines..... 11 " 6¾ "
5,213 for Louvain..... 14 " 8¾ "
456 for the rest of Belgium."

Miscellaneous Items.

A New Invention.—There is a model of a steamboat to be seen on the Chesapeake, invented and constructed by Cyrus Williams, Esq., which is exciting considerable interest among steamboat men. It is in the usual form of boats except it is more flat bottomed, and much longer in proportion to its width, than the boats now in use, giving it a greater surface to the water, and of course a lighter draught. The improvement is in applying the bridge principle of *bearers* in supporting length to boats. It looks perfectly feasible. Mr. Williams thinks it will be a great saving of expense, as it takes much less timber and all of it can be sawed in a mill, being straight stuff. He offers to build a boat on this model, furnishing one-third of the stock, and if it does not make 25 miles to the hour, he will forfeit his share.

Worcester Railroad Cars.—On Thursday last the directors of the Worcester railroad placed, for the first time, upon the track, two new cars, for the conveyance of persons to the celebration at 'lake Cochetuate.' These cars were constructed in a manufactory attached to the Worcester railroad depot. The company, for the past few years, have built all their own cars. The two cars to which we refer, possess several very decided improvements over the old forms. The backs of the seats are considerably higher, and consequently it is easier to sit upon the seats; the number of windows is less, leaving a space between each window of some four or six inches, thereby strengthening the car—the windows are quite as large, if not larger, than the old form, and are much lower, so that one does not have to make any painful effort to look out of them; the blind is in two parts, one rising and the other falling, so that a person can readily accommodate the shade to suit his own pleasure. There are also racks on the sides, for hats, umbrellas, coats, etc.—This is a great improvement, as it affords persons travelling an opportunity to dispose of their coats, etc., without incommoding themselves and their neighbors. The seats are covered with plain red velvet, and the cars are very neatly painted.—*Boston Evening Journal.*

The Coal Trade for 1846.—The Miners' Journal of 22nd, says:

The quantity sent this week is only 31,101·16 tons, being upwards of 5,000 tons less than last week, caused entirely by the stoppage of orders.

For the information of dealers abroad, we are authorized by John Tucker, Esq., president of the Reading railroad company, to state that no reduction in coal and transportation on coal, will take place this year.

The demand for red ash coal for household purposes continues good, and also for some kinds of white ash. Prepared white ash is also inquired for more freely than last week. Several of the white ash colleries have suspended mining entirely, and closed their works for the present.

Cost of Pictou Coal.—The Anthracite Gazette gives the following as the cost of a cargo of Pictou coal, received last week at Providence from Pictou:

62 chaldrons, Pictou measure, *a* $3.....	$486 00
Measured by custom house in Providence, 7,776 bushels, equal to 216 chaldrons of 36 bushels each, and weighed 274 tons 18 cwt. 2 qrs. 8 lbs.	
Duties *a* $1 75.....	475 87
Freight on 216 chaldrons custom house measure *a* $2 87½.....	621 00
Cost of ton of 2,240 lbs., $5 82.....	$1,582 87
New tariff.	
162 chaldrons *a* $3.....	486 00
Freight *a* $2 87½.....	621 00
Duties *a* 30 per cent.....	145 88
Cost of 2,240 lbs., $4 60.....	$1,252 80

The coal at present is charged $3 30 per chaldron, but a discount is made of 30 cents per chaldron. The coal is of a good quality and much used for work that cannot be well done with the hard coal. The price under the new law will bring the price the same as the hard coal.

James River Improvement.—We learn from the Fincastle Democrat, of the 15th instant, says the Richmond Whig, that Major Gwinn the president of the James river and Kanawha company, with two engineers, passed down the river a few days before, having been as far as Charleston, Kanawha.

At a public meeting in Fincastle, on the 10th, a committee was appointed to ascertain as far as practicable, the tonnage that now passes down James river from that section of country along the canal from Lynchburg to Richmond, and what would be the probable increase of tonnage in the event of an extension of the canal from Lynchburg to Covington—to be communicated to the James river company at the next meeting of the stockholders, and also to the legislature of Virginia.

Central Railroad.—Information from the east has rendered it necessary for the commissioners to alter the notice for subscriptions to the Central railroad stock. The time for opening the books is changed from the 7th to the 10th September, to remain open *three* days. Ten dollars on a share are required to be paid down.—*Det. D. Adv.*

Every line of railroad that is constructed forms an inducement for the construction of other railroads, either in extension or as collateral roads. If a good railroad were formed from St. Louis to the Wabash, or to Springfield, Illinois, it would speedily lead to the construction of other roads connecting with it. *St. Louis New Era.*

Toledo and Adrian Railroad.—We understand that the cars on the above named road, were stopped about a week since. In "due course of law," there has sprung up two parties who claim the ownership of the road.—The party having possession obtained an injunction against the other party upon that part of the road lying in Ohio; upon which the other party got out an injuction upon that part of the road lying in Michigan. The day it was to be served, the party in possession heard of it, and detained the cars at Toledo.

The state of Michigan has been trying for some time to break down this road; and what it has yet failed to do, the owners themselves are in a fair way to accomplish.—*Buffalo Com. Adv.*

Forty miles of railroad from Cleveland towards Pittsburg are to be immediately put under contract. The surveys for the balance of the road will be soon made. The citizens of Cleveland are active in the matter, and their example should stimulate the capitalists of St. Louis to action.—*Cleveland Herald.*

Canal from Enfield Falls.—We understand that Mr. Anderson, the engineer selected for the purpose, will to-day (Monday,) commence making a survey for a canal from Enfield falls to this city. It is thought a greater water power can be obtained here than at Lowell.—*Hartford Courant.*

Cast Iron Roofing.—A specimen of cast iron plates for roofing of buildings, says the Philadelphia Ledger, has been exhibited at the exchange, in Philadelphia, by the inventor and patentee, Mr. Wm. Beach. The plates are about a foot square, and are made to fit one into another so as to render the roof perfectly water tight, with the application of white lead to the joints. In every respect this material for roofing is preferable to any other description now in use. As to its durability there can be no doubt that it would remain perfectly whole for ages, if covered occasionly with a coat of paint, and even without that preservative, rust would not affect it materially for a period of fifty years, at least. As compared with copper, the cost would be nearly one-half, as it is expected the iron can be furnished at 16 cents per square foot, while copper would at the most moderate estimate cost 28 cents. As regards the weight of an iron roof, which at first sight would appear an objection, it is far less than one formed of slate and does not much exceed one of copper.—The iron plates weigh 3½ pounds per square foot. A slate roof would cost about 8 cents per square foot, but for durability and the ease with which it can be put on and made water tight the iron roofing would appear to be far preferable. The plates exhibited were cast at Troy, New York, and are of the very best quality. The patent for the eastern states is now owned by Mr. Hiram Hemmistone, of Troy, in which neighborhood the adaptation of such a durable material for roofing is rapidly attracting public attention there. Starbuck's machine shop and foundry at Troy has been covered on this plan, and it has also been adopted for the roofing of an arsenal at West Point. The patent for the middle and western states has been reserved by Mr. Beach and he is about entering extensively into the business at his foundry at Bush Hill. The directors of the academy of fine arts have the propriety of using this material for roofing the fire proof building now erecting for the reception of their valuable collections. The rafters and supports for the roof are of iron, and it was proposed to use tin as the exterior covering, but the advantages to be derived by substituting cast iron are so evident that it is to be hoped they will at once seize the opportunity of roofing it with a material that will be as durable as the building itself.—The specimens will remain at the exchange for a day or two longer, and the attention of builders and others is directed to the fact for the purpose of inducing them to examine the advantages of a general adoption of the plan.

Railroads.—The St. Louis New Era says: "The latter experiments prove that railroads can be profitably used in carrying heavy freights at low rates, and that they will come into successful competition with navigable rivers. The experience of the past year shows that they can be successfully used in transporting southern cotton to the north, and in carrying the produce of the valley of the Mississippi to the Atlantic ports. We need a railroad direct from St. Louis to the Atlantic," and must have one too at no distant day. The subject ought to be agitated, *agitated*, AGITATED constantly.

The Iron Trade.

Our readers will find, by reference to page 626 in the last year's volume of the *Journal*, an able article, over the signature of "A LOOKER-ON," upon the subject of "The Iron Manufacture." In that article, the writer assumed the ground, (more than a year ago) that the English parliament would sanction *not less* than 2,000 miles of railroad, during the year 1846, and 1,000 miles additional in 1847. He also estimated that an increased demand for between two and three millions of tons of iron would arise, to complete this additional amount of road—a demand much beyond the existing manufacturing ability of the country—which it would be impossible to supply. The result of the past twelve months' operations has more than substantiated these predictions—as is clearly shown by the same able writer, in another article, published in a recent number of the London Mining Journal, which is appended hereto, and earnestly recommended to the attention of all in this country engaged in the *iron manufacture*.

It is not our intention to enter into lengthy dessertation upon the merits or demerits of the tariff law, passed by the late session of congress; but so far as the question arises, legitimately, as to its effect upon a certain branch of business as important as is the *iron trade* in this country, we have, and shall express freely, our opinion.

That legislative regulations will affect the operations of trade, to a greater or less degree, requires neither proof nor argument to show. We see its effects daily on nearly all the great interests of the country. Capitalists become alarmed, and cease to invest, especially in those branches which require the largest outlay, and thus the laboring man, who relies upon his daily efforts, is out of employ. Yet, under the present, and *unparalleled*, condition of the iron trade in Europe, *we* do not apprehend as serious results to that particular interest in this country, from the new tariff, as do many others—and we therefore would say to those who *have been*

disposed to embark in the iron business, *do not be alarmed*. Look thoroughly into the subject, and then decide. We *must have* iron in large quantities, and we *must make* it too. To those *now in* the business it is hardly necessary for us to say a word; as there is, in our opinion, no other branch of manufacture in the country which promises a more *sure* and ample return to those who manage discreetly—especially those who are making railroad iron.

The article we allude to is well worthy the attention of the people of Pennsylvania. The estimates made, show that the supply of iron demanded for the chartered railways in England, is far beyond the capacity of England, Scotland and Wales to furnish—and that the amount of iron *already* virtually bespoken is equal to the total make of these three countries *for four years to come!* This statement originates "from parties of great practical knowledge and discernment," and it is believed to be unbiased, and mainly accurate. If the assertions therein contained are *correct*, it is pretty plain that our *home* market can scarcely be much injured while this enormous demand exists in England. There is far more reason to believe that the price of iron will reach such a point as to defer the prosecution of some of the projected roads, than that the fears of some people will be realized.

In our judgment—and we base our opinion upon the *facts* which are now in existence—the business of making iron *cannot* be otherwise than *largely profitable* for years yet to come. By a careful perusal of the article to which we have referred, in our last year's volume, it will be seen that the estimates there made by "A Looker-on," immense as they were, have been far more than realized, and that instead of 2,000 miles of road (as there set down,) parliament has already granted charters, *this* year, for nearly 4,000 miles, upon which instalments have been paid, and for which orders to a considerable extent have already been forwarded for the iron. *These roads must be made*, and the orders for the iron *will* be filled by the erection of new works. If, then, there exists such a state of things in the English market, what fear need there be entertained of a foreign competition? The fact is set down as *certain*, that the entire capacity of all their *existing* furnaces, is altogether inadequate to supply the iron for the immediate wants of England's railroads, and the writer very reasonably makes out that to supply the wants of only the 2,000 miles of road, (as he originally calculated for,) this increased demand can in no possible way be answered in England, save by a very large additional number of furnaces and other works, which, even with such addition, will require *four years* to accomplish. If, then, the estimates can be relied on, and we think they can, we see little occasion for uneasiness among iron manufacturers, or cause for alarm.

After a careful examination of the statistics furnished us, we repeat our conviction, that the business of iron making *must* of necessity continue to be *profitable*, notwithstanding the *check* which it may for a time, under existing circumstances, receive; *and that the iron trade will become more profitable than it has ever yet been in this country.*

We have extended our remarks to a greater length than we intended, but the subject is one of such vast importance—not only to those now embarked in the manufacture, but also to the *entire railroad* interest—that we feel bound to speak freely, and earnestly to urge those interested to hold steadily on and bide their time. Read carefully the remarks of a "A Looker-on," and then survey the whole field, and act prudently but decidedly.

THE IRON TRADE—PROBABLE SUPPLY AND CONSUMPTION.

Sir: When I addressed you, at the close of the last session of parliament, under the above title, I ventured to predict, that "the impetus for railway making having been given, nothing would check it until every town in the kingdom is accessible by railway."—I presumed that "not less than 2,000 miles of railway would be sanctioned by parliament in the present session, and (at least) 1,000 miles in the session of 1847." I calculated that, in the three years (1846, 1847, and 1848,) an extra demand for between 2,000,000 and 3,000,000 tons of iron would be created by railway enterprize; that such a deficiency of labor, of materials, and of manufacturing capability, would be experienced, as to make it impossible to meet that demand; and that "the difficulty of obtaining iron at any price would shortly present a novel feature in the commercial history of this country."

The course of events has more than confirmed those expectations; and has interfered with those calculations, only to make the result more remarkable, and more certain.

The impetus for railway making has surpassed all precedent. Old and young, male and female, peer and peasant, clergy and laity, merchant and clerk, shopkeeper and journeyman, all became enamoured of the new investment. Political economists, legislators and daily journalists were alarmed—"leading articles," "city articles," "bankers circulars," speeches in the lower house, and speeches in the upper house, grave dissertions in bulky periodicals, and humerous illustrations in ephemeral productions, all conspired to impede the rapid movement. Sessional orders of a novel description were passed with extraordinary haste, in order to extricate the multitude of scripholders from the meshes of the net in which they were considered to have entangled themselves. And what has been the effect of all these attempts to suppress the railway "*mania*" and to relieve the "*deluded*" speculator? A few injudicious schemes have been abandoned—a few deposits have been returned; but by far the greater number of the railway projects are progressing, and will progress in spite of the loud outcry, the grave warnings, and the fearful apprehensions. *Instead of* 2,000 *miles of railway being sanctioned this session, there is every probability of* 4,000 *miles receiving the royal assent;* AND INSTEAD OF 3,000,000 TONS OF IRON BEING REQUIRED FOR RAILWAY PURPOSES, BETWEEN 4,000,000 AND 5,000,000 TONS WILL BE WANTED.

We stop to inquire—How will this singular movement affect the commercial interests of the country? Will it derange the whole of our monetary system, as has been hastily asserted, and a thousand times repeated? Will it absorb all the spare capital of the country, or create confusion for leaving all ordinary undertakings too scantily supplied? No such thing will happen. Railway enterprize differs from every other, and the distinction has been wonderfully overlooked.

A railway is a stupendous piece of machinery, which, unlike all other machinery, cheapens cost, without either increasing production or diminishing human labor.

Railways call for a large amount of capital, but by expediting the transit of goods, they so reduce the stock of every tradesman, that they create a disposable capital, in many cases equal to that required for their construction.

The mode of raising railway capital, and the manner of expending it, serve also to neutralize the inconvenience which often attends the subtraction of a large amount of money from the ordinary channels. Being divided into small shares, and payable by small instalments, a great portion of such capital is made up of inconsiderable sums, which would otherwise have been unappropriated and unproductive. Nor is railway capital long idle—it quickly returns into the hands of engineers, lawyers, land owners, iron masters, timber merchants, contractors, and workmen—all of whom become possessed of extraordinary funds, a considerable portion of which reverts, either directly or indirectly, into similar investments.

Instead of requiring an increase of the circulating medium, which is the natural consequence of investments in trade or manufactures, railways convey the gold and silver to the provinces, and back to the metropolis, with such rapidity, *that every new line lessens the required amount of the circulation*, and accumulates the bullion in the coffers of the bank of England. *They create also a new and a large paper currency in the shape of scrip and share certificates*—the value of which is ever fluctuating, but taken as a whole, is fully equivalent to the nominal amount.

Taking into consideration all these circumstances, the position may be fairly maintained, *that there cannot be too large an outlay in railways, provided the expenditure is regulated by economy, and such lines only are sanctioned as will, at moderate fares, yield a proper return for the capital employed*, and not materially reduce the returns of previously existing lines. These desiderati will, no doubt, be sometimes wanting; *yet it does not follow, that an ill-paying line to the shareholders, is a losing line to the public.* There may not be sufficient traffic to remunerate the proprietors, *yet the saving to pasengers and traders may be greater than the dividends on the best paying lines.* It is therefore, the interest of the public, *that as little delay as possible should occur in completing the projected railways.* There is no fear of their progressing *too rapidly;* but there is reason to apprehend, that they *cannot* be executed *with speed equal to the public requirements.*

The great check which will be given to railway making, both at home and abroad, is the necessary restriction to *one material*, and the *impossibility* of supplying the demand, which railways must create for that material. It has been asserted over and over again, that such a vast number of miles of railway ought to be distributed over a period of seven or ten years. That such a distribution *ought* to be made, is very questionable; but that such a distribution *must* be made, is absolutely cer-

tain. The *money* may be found—THE IRON CANNOT BE SUPPLIED.

At the close of the present session, the railway companies incorporated by act of parliament will have virtually *bespoken a quantity of iron equal to the total make of England, Wales and Scotland, for the next* FOUR YEARS *—leaving* NONE *for ordinary uses at home*, the requirements for which are steadily *increasing*, and will be further stimulated by the liberal commercial policy recently adopted by our government; *and leaving* NONE *for the supply of foreign countries*, whose wants already exceed their own capabilities, and who will ere long, follow the example of Great Britain, and abolish those restrictions which have hitherto prevented them from purchasing in the best and cheapest market.

WHERE THEN IS THE IRON TO COME FROM? Our *make* of iron is *not* at present, on the *increase*. A few new furnaces have been built—a few more are in progress; but most of the old works have reached their maximum and several are on the decline. Whatever ingenious theorists may surmise, respecting the *formation* of iron ore, and the *growth* of coal, the practical iron master is every day reminded of the *disappearance* of those minerals. He knows too, that as wages advance his *stock* of minerals is apt to diminish; and that the quantity of iron manufactured does not depend so much upon the demand, as upon the readiness or reluctance of the miners to keep to their work, which is so laborious, that they would rather do less and earn the same wages, that do the same work and earn more. *These circumstances will, for a long time, operate to prevent any addition to the quantity of iron now manufactured*; meanwhile, the excess of the demand beyond the supply *must create exorbitant prices*, and many a railway will present the strange anomaly of being incomplete, because it *cannot be provided* with the article which gives it both its name and its utility. It may be asked, why has the price of iron receded, rather than advanced, during the last year? Because of the uncertainty and the gloom which have hung over our commerce, our government, and our foreign relations. *These clouds have all passed over*; and with a free trade, a strong administration, and peace with all the world, *nothing can prevent the natural tendency of an article to continue to rise in price, so long as the manufacturer is unable to meet the wants of the consumer.* A LOOKER ON.

The following extracts from the London Mining Journal, of Aug. 14th, show an advance in the price of iron, and fully sustains—as will the next arrival—the views of "A Looker-on," published in this week's Journal, it confirms, also, our often repeated statements. We also give an extract from a letter recently received from an intelligent Pennsylvanian on the subject of the iron business. He says:

"It will *surely* be profitable to those *now* in it, or who may soon embark in it, if they can go through the *present* crisis of apprehension. We cannot get *rail*road iron from abroad, and *must* therefore, *make* it or do without it—it follows of course then, that those who are *now* in it, and can hold on until the alarm is over, or those who *may now* go into the business, will be successful."

English Iron Trade.

LONDON, AUGUST 14, 1846.

	£.	s.	£.	s.	d.
Bar *a* Wales—ton	8	5—	8	10	0
" London	9	5—	9	10	0
Nail rods	0	0—	10	5	0
Hoop (staf.)	11	5—	11	10	0
Sheet	0	0—	13	0	0
Bars	0	0—	11	0	0
Rails, average	9	10—	9	15	0
Welsh cold blast foundrey pig	4	5—	5	0	0
Scotch pig *b* Clyde	0	0—	3	15	0
Russian, CCND *c*	0	0—	0	0	0
" PSI	15	0—	15	10	0
" Gourieff	14	5—	14	10	0
" Archangel	0	0—	13	10	0
Swedish *d*, on the spot	11	0—	11	10	0
" Steel, fagt	0	0—	15	5	0
kegs *e*	14	0—	14	0	0

a, discount 2½ per cent.; *b*, net cash; *c*, discount 2½ per cent.; *d*, ditto; *e*, in kegs ½ and ¼ inch.

IRON.—Welsh and Staffordshire remain without change. In Scotch pig several large sales have been made within the last two days, owing to the change in the American tariff, at 72*s.* 6*d.* for mixed nos. and 75*s.* for No. 1—which price must still be considered to rule, although some holders ask 2*s.* 6*d.* more. Some contracts for railway bars have been entered into this week at our quotations. In Swedish iron and steel nothing doing.

Messrs. Whitcomb and Barton, Old Broad street, say: The demand for all kinds of English iron has improved during the week, but prices remain the same. Considerable business done in Scotch pig iron, and we quote the price 75*s.* mixed nos.

Glasgow Pig Iron Trade.—Aug. 7.—We have had a very quiet week for iron, and there are few sales to report; prices have not however given way much, but the few sales reported have been rather in favor of buyers. We quote 69*s.* to 70*s.* No. 3; 71*s.* 6*d.* to 72*s.* 6*d.* mixed; and 74*s.* to 75*s.* all No. 1—cash, free on board.

Aug. 8.—The price of Scotch pig iron, delivered free on board here, may be quoted to day at 73*s.* 6*d.* to 74*s.* for No. 1; 68*s.* 6*d.* to 69*s.* 6*d.* for No. 3; and 72*s.* for 3-5ths No. 1, and 2-5ths No. 3 per ton—net cash. At these prices a considerable business has been done this week, and dealers in general hold for a higher figure.

Aug. 11—We have no change to notice this week in prices; and, though still dull, there is more inquiry for iron.

Bombay.—Manufactured iron is without particular change, except that the market is reported firmer, but sales were limited. Bar was becoming scarce, but no advance in price had been obtained. Swedish iron and steel were both dull of sale, but without change in price. The following are the exports of iron to this port from the United Kingdom during the last three years to the first of May.

	Swedish bar.	English bar.	Sheet.	Rod.	Hoop.
1844	541 tons	3,335 tons	421	229	71
1845	24 "	778 "	110	81	18
1846	812 "	197 "	50	140	—

After a sharp contest, the new American tariff has passed the senate, by the casting vote of the vice president—ayes 28, nays 27: and in the house of representatives, on the subsequent question of concurrence—ayes, 115; nays, 93. On the 30th ult., the signatures of the presiding officers of the two houses of congress were affixed, and the approval of the president was anticipated on the following day. The period for the new scale of duties to come into operation is fixed for the 1st December next. Iron of all descriptions will then pay 30 per cent. ad valorem, in lieu of the hitherto heavy scale of duties, detailed in our publication of the 1st instant. Attention appears to be directed in America to the advantages to be derived from the construction of the railways now in contemplation, and in progress, that will render reciprocally beneficial the intercourse between the Canadas and the United States.

By the India mail, the report has been received from the engineers appointed to make a survey upon the practicability of introducing railways in India, and upon an eligible line to connect Calcutta with Mirzapore and the northwestern provinces. In this report, a railway from Calcutta to the northwestern provinces is traced of 900 miles in length, with branches of about 200 miles to diverge therefrom, to give the most suitable accommodation to the country at large, and, to relieve the traffic of the Ganges, proceeding to Calcutta, from its great drawback during at least eight months of the year. An extension of the line from Mirzapore to Delhi is likewise suggested, which in length will be about the same as that of the line above described—Mirzapore being about midway between Calcutta and Delhi; and from this upper portion of the main line from Calcutta to the northwest, four important branches, (the last extending to Agra) are recommended, of together about 250 miles. The engineers that furnish this report think the line from Calcutta to Delhi should be granted to one company, who would then have a great length of line for a reasonable average outlay—the lower half from Calcutta to Mirzapore, costing considerably above the average, and the upper part, from Mirzapore to Delhi, much below it. The lieutenant governor of the northwestern provinces, suggests that a suitable line of country might hereafter be found for the construction of a railway from Agra to Bombay, to join the main trunk line between Allahabad and Calcutta; and by these two lines the northwestern provinces would be effectually supplied with communication, not only with the seat of the supreme government at Calcutta, but with the great seaports of the two opposite coasts of the continent of India.

To construct these contemplated Indian railways, the various localities produce stone, timber, etc.; but the one all important material for a railway—(*iron*)—*must be sent from England*—a fact of which the British iron trade cannot fail to experience the benefit, not only in demand, but in the price, to be obtainable for the numerous requirements of the various railways now constructing at home and abroad; added to which, there will be, from the operation of the new American tariff, shipments to America of other manufactured iron, hitherto prohibited from the excessive duties to which it was subject by the tariff, to cease on the 1st December next.

The number of acts of parliament for railways that have received the royal assent this session, are 257—the length of which are 3,951 miles; and last evening, in the house of lords, seven more bills were added to this number. These additions to the works now in progress of the companies, incorporated in the previous sessions, shows the requirements at home will be most important, allowing for these undertakings to be carried on with the judgment and discretion, the respective directors will, doubtless, exercise in making the calls to complete them.—*Lond. Mining Jour.*

Correspondents will oblige us by sending in their communications by Tuesday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.

Saturday, September 12, 1846.

Cars.--Room, Cleanliness and Ventilation.

Next to furnishing passengers with safe cars, it is necessary that there should be room enough for those who take passage. The rapid increase in the number of travellers, particularly in the summer season, has given rise to an abuse which is always attended with discomfort and inconvenience, and may produce serious or fatal consequences. We refer to the abominable practise of crowding into a train many more persons than can be comfortably seated —or even seated at all.

We have seen as many as 30 or 40 persons more than seats were provided for thrust into a train of three cars, and compelled to stand for miles, until the number of sitters became gradually reduced. This, too, happened when the thermometer was about 80 deg., and when no grown man, whose head reached above the half opened windows, could endure the suffocating atmosphere. Of course the platforms were full of passengers—who were insulted by a notice that no one was permitted to stand upon the platforms, etc. If any accident had occurred, the lives of all the unseated passengers would have been endangered, with the poor consolation of being blamed as the cause of their own misfortunes.

We have said that such treatment is abominable, and if any one is inclined to deny this, the worst we wish him is, that he may be served so himself. We contend that a company undertaking to carry passengers, is bound to furnish them with seats, and comfortable seats too. There will be found in almost every car one or more persons who are from some reason or other very disagreeable companions, to be compelled to sit beside such a person in very close contact is too bad. We have seen and have heard of cases of this kind, where drunken men have insulted quiet people who were most unwillingly their neighbors, and even soiled the clothes of those next them.

The evil of which we complain is caused sometimes by bad management in suffering the cars to be out of reach when wanted, and sometimes by the pitiful economy of having one car less in the train. Whatever the cause may be, we propose a remedy speedy and certain. It is this: *let no passenger pay his fare who is not furnished with a comfortable seat for the whole distance he may ride in the train.* This is but fair and just, and the determined conduct of the aggrieved parties would soon terminate this monstrous imposition upon the good nature of the public.

Cars should be kept as clean as possible, and thoroughly ventilated by suitable means, beyond the control of passengers.

If cleanliness is next to godliness, and fresh and pure air necessary to the support of life—should the one be disregarded and the other shut out from the very place where both are most needed? There are few situations in which men willingly place themselves, where the accumulation of vitiated air and animal exhalation, is equal to that of a closed railroad car. Sixty persons inclosed within a space but a few times larger than the bulk of their bodies, is as horrible an imprisonment as that of the famous Black Hole.

The mere vitiation of the air by the lungs of so many persons, would require large apertures constantly open to preserve the atmosphere in a tolerable condition—but if we add to this the exhalation from the bodies of the same number, increased by the heat, and rendered more nauseous in wet weather—when the cars are always closed—and still more, if we add the effects of uncleanness of person or garment, we have a composition offered us to take into our lungs which might well constitute one of the means of torture in the infernal regions. We ask pardon of our readers for giving one stroke more to this truly horrible picture. Let the floor of the car be covered with tobacco juice, orange skins, peanut shells, and worse things, the windows not cleansed since the 31st of February last, and the whole interior covered by a time-honored accumulation of *grime*—in winter we may add a red hot stove, and the well known odors of singed coats, toasted india rubber overshoes and smouldering quids—and what worse dungeon could be imagined—to what torments should the guilty wretches be exposed who treat us in this villainous manner? Alas! they are no more nor less than the very respectable gentlemen who compose the direction, but know nothing of the management, and the horrible dungeons are no other than very elegant cars, which have cost untold sums of money for their decoration, but have not one single hole of any size for the regulated admission of pure air.

We have seen the reality of which this is but a feeble description—it is not often to be found quite as bad—but it is often found nearly as bad—and we might say is never other than bad. It is true that two "ventilators," as they are called, are placed in some cars, but they are never what they ought to be. Cleanliness is much more observed within the last few years, but ventilation is never thought of.

Several years since we proposed a simple and convenient method of ventilation, by means of apertures covered by wire gauze. No particular ingenuity is required to arrange them in the ends of the cars, so as to produce no sensible draught, and yet admit of the rapid renewal of the air, where it is most needed—*at the top of the car.* Even in warm weather, when the windows are all open, the space above is constantly filled with foul air which cannot be removed, and from time to time is mixed up with the other air so as to give a constantly offensive atmosphere.

We have dwelt the longer upon this topic in hopes that those whose business it is to direct, may have their eyes opened to the enormity of the nuisance. Gentlemen who would not ask a stranger into a room where odor assaulted the dullest olfactories, must not as directors of a railroad commit the offence upon the whole travelling portion of the community.

Steamboats, stage coaches, in fact all other means of conveyance are better in this respect than close railroad cars, for in these the largest number of human beings are crowded into a given space than has ever been so confined without loss of life. But there is no sort of necessity for the risk—it is for this reason that we complain, and shall continue to complain, to remonstrate and to warn, until we see the nuisance abated.

Low Fares upon Railroads,
And the Camden and Amboy Railroad.

We have long contended that the principle of *low fares upon our railroads* is the only correct one to enhance the value of the stock, and to increase the business of the road; and ample experience has already been had in this country, especially with the roads upon our Atlantic cities, which have tried the experiment, to determine this fact beyond any question. There are some few exceptions among the most important routes in the United States, which *still* adhere to their established exorbitant prices for carrying passengers, to which we have hitherto had occasion to allude, and which are still the subjects of great complaint among travellers. Our attention is again drawn to this matter, from statements made in late eastern journals, in reference to the effect of *low fares* upon some of the New England routes, and we take occasion to commend this information to the particular notice of the stockholders and managers of other routes, *nearer home.* The Boston Courier informs us, that during the summer of 1845, the fares between Boston and New York were reduced, by opposition, to $2, first class, and $1 62½, second class. By a recent arrangement, the rates have been advanced to $4, and $2 50, or nearly doubled. Upon comparison of corresponding months soon after the change, the numbers and receipts have been as follows:

	Numbers.	Receipts.
July, 1845	18,110	$45,208
July, 1846	12,301	35,963
Diminution	5,801 decrease	$9,245

It will be seen from these statements, that the number of passengers was *forty-six per cent. more*, and the receipts *twenty per cent. more* during the season of *extreemly* depressed rates—and though the first named price is even *below* the estimate contended for [by the friends to low fares] upon this particular route, or for that distance, yet the experiment shows a proportionate gain over the higher price. The Courier adds that if, in place of $4, [the present price from Boston to New York] a *medium* summer fare of $3 had been adopted, "it may well be presumed from the facts that it would have been still more successful, and many additional thousands would have enjoyed the privilege of travelling."

And in considering these results, adds a corresondent of that paper "it should not be forgotten that the *first* effects of elevating fares is an almost invariable gain, as many passengers are *compelled* to pay advanced prices who have been tempted from home by low rates of charge."

Now it is a well established fact that *low* rates of fare, when introduced upon any road, or any route, immediately increase the receipts—and the practical truth of this assertion has been proven over and over again. The reduction of the rate of fare upon the Boston and Lowell road, within the year past, has proved of immense benefit to the stockholders, and the price which was formerly one dollar, and afterward seventy-five cents, is now but sixty-five cents. This reduction of *thirty-five per cent.* has caused a great increase in the number of passengers, and the result has proved of the greatest advantage. This is but a single instance.

The fare between New York and Philadelphia is the most exorbitant in the country. This road maintains its price at *four dollars* for a distance of

eighty-eight miles, or about 4·9 cents per mile! Now it has long been a settled fact, that a handsome profit will accrue over a well travelled route, at 2½ cts. per mile, and thousands of miles of routes, by coach, cars or steamer, in this country, are now rendered profitable by a charge not exceeding this price. Yet the managers of the route between this city and Philadelphia, adhere to four dollars, when there can be no doubt, were they to reduce the price to three dollars, or even to *two and a half dollars*, for their first class passage, that *two to one* would pass over that road, who go at the existing high rate. It will not be questioned for a moment, that the business men who are *compelled* to visit New York, from Philadelphia, and vice versa, once or twice a year, would not go four, or five, or six times, in the same space of time, could they go at the cheaper rate; nor will it be contended that strangers who are constantly visiting New York city, would not, in a majority of instances, extend their visit to Philadelphia, were the fare any where within a *reasonable* amount.

We again call the attention of the stockholders and directors of this road, to these facts, and ask them, for their own advantage, as well as for the good of the travelling public, to take these matters into careful consideration—believing that the proposition is well worthy their *especial* notice.

We have for some time had in hand a pamphlet, put forth by the Camden and Amboy railroad company last winter, addressed to the legislature of N. Jersey, which has been carefully perused, and which, *at an early day*, will be the subject of further comment, as regards the principle of *low fares upon railroads*, and the practice of this company on the lines between New York and Philadelphia.

Ohio Railroads.

We find in the late Cincinnati papers an interesting account of the opening of the "Little Miami railroad," from the "Queen city" to Springfield—a distance of 85 miles. A large concourse of the citizens of Ohio assembled at Springfield on the occasion—composed of ladies and gentlemen from all sections of the state. This is the *first* road in Ohio which has been *completed*, and the event was the cause of a good deal of interest. At 4 o'clock, p.m., on the 12th of August, about 350 persons were seated at tables arranged in the car house, and toasts and speeches were the order of the day. One of the first toasts was as follows:

"*The President, Directors and Company of the Little Miami Railroad*—By their zeal, energy and patience, they have this day completed the first railroad in the state of Ohio, over ground where some of them probably assisted in opening the first wagon road in the Miami valley."

This was received with applause, and a suitable response was made.

The Cincinnati Enquirer remarks that it is really "amusing to see the sensation a train of railroad cars produces on all animate beings, human and brute, for the first few times it passes over a section of road. We saw herds of cattle, sheep and horses, stand for a few seconds and gaze at the passing train, then turn and run for a few rods with all possible speed, stop and look again with eyes distended, and head and ears erect, seemingly so frightened at the tramp of the iron horse as to have lost the power of locomotion.

"Men, women and children also seemed dumbfounded at the strange and unusual spectacle. As the cars came rumbling along early in the morning, they seemed to bring everybody out of bed, all eager to catch a glance as we whirled past. Old men and women, middleaged and youth, without waiting to put on a rag in addition to their night gear, were seen at the doors, windows and round the corners of log huts and dwellings, gaping with wonder and astonishment at the new, and to them grand and terrific sight."

Unfortunately, in returning to Cincinnati, the company were exposed to an accident which somewhat marred the recollection of the festivities which had been so pleasurable. The Enquirer relates it as follows:

"As the train of cars were coming from Springfield with a large number of passengers, it came in collision with the upward train, about one mile this side of Plainville. The concussion was very severe, completely disabling the two engines, and making wrecks of the tenders and wood cars. The engineer and fireman on the down train saw the up train approaching in season to shut off the steam and jump from the engine, escaping with little or no injury. Not so with the engineer and fireman on the up train; they had to remain on the engine and bide their fate. The engineer was dreadfully scalded, and thought to be in a very critical situation. The fireman had his shoulder dislocated, and was otherwise severely bruised. There was but little damage done to the passenger cars, and as far as we could ascertain, every passenger escaped."

The energies of the enterprizing engineer of this road, W. H. Clement, Esq., have been untiring during the construction of this last branch of the route—and the flattering reputation he has so long enjoyed as engineer upon the section between Cincinnati and Xenia, is well earned. We are happy to learn that the road is now complete, and under the superintendence of Mr. Clement we are sure that it will prove both prosperous and profitable.

The following account of the town of Springfield we copy also from a Cincinnati paper. It is given at the close of a narative of the proceedings on the 12th ult.

"*That* Springfield is a very pretty village. Within the corporation line there are fifty springs bursting to the light and air, the sources of bright streams, and the best specifics for health. One near the village is highly medicinal; another, of considerable size, breaking from the foot of a limestone cliff, falls into a basin furnished for its use by General Anthony; while the streams which unite at Springfield are perrennial, flowing over rocky beds, and leading their small tributes through glens of picturesque beauty. Springfield is on the highest ground of that region, and is set in the prettiest scenery of the state. Northwardly stretch the lovely prairies of Champaign, while a few miles to the southward, we come to the Yellow springs, the destined Saratoga of the west.

"The public have to expect from the directors of the Little Miami railroad the most *exact certainty* in all their arrangements. As we were returning last Saturday morning, August 15th, another collision was *barely* avoided. The downward train started from Milford on a single track, after waiting there some time for the other train to pass. As we approached a point, where a sudden curve obstructed the view, the engineer checked our speed, and sent a woodman forward. It was most fortunate, for the other train was right ahead, and a collision was avoided by our backing to Milford, and letting the up train pass on the double track which is laid opposite that village. If it had not been for the panic of the recent accident, our chance for a grand crash would have been about even. Surely these things might be safely arranged."

Southern Railroad.

By late papers from the south, we are happy to learn that a new interest has lately arisen along the line of the Southern railroad, from Raleigh to Fayetteville, and thence to Cheraw and Camden, S. C., in reference to the extension of the Raleigh and Gaston railroad. This embraces the great connecting link in the Washington route, and thence through to the north, and is a subject of the greatest importance to the southern travel. The National Intelligencer says:

"Of the importance of this work, in every point of view, nothing need be said. But a correspondent of ours is desirous to impress upon the capitalists of the country, north and south, the very favorable opportunity this road, from Raleigh to the South Carolina line, offers for the investment of money.

The road from Gaston to Raleigh cost $1,600,000, and may be purchased for $400,000. The road from Raleigh to Fayetteville and thence to the South Carolina line, may be laid down for a million of dollars. Thus the entire line from Gaston to the South Carolina line would cost $1,400,000 for a road 170 miles long, and the cheapest in the country. But the country through which the road will run is one in which no spare capital can be found, but in which materials are plenty, and of the best kind, where provisions are cheap, and where, best of all, the people are honest, and are all ready, every man, to do all he can. Capitalists at the north or abroad may safely trust their money in this good old anti-repudiation north state.—Her people are ever true to themselves, and they will ever be so those who trust them."

A correspondent of the Charleston Courier, speaking upon this subject, holds the following language:

"This is a question of vital importance to Charleston, and one which it behooves her to revolve deeply before taking any decided step. There are two lines of railroad in North Carolina proposing to form a connection with us; the one which now terminates at Wilmington, and the one terminating at Raleigh. The road from Wilmington, along the seaboard to Charleston, could not be expected to bring any freight to the city, nor increase its trade in any respect. The transportation of freight between the city and points along the coast can always be made cheaper by water than by railroads. If the town authorities should use the precaution to keep the two depots half a mile apart, there will be 25 cents per head on the passengers secured to the omnibus owners, and should the hour happen to suit, the tavern keepers will have 50 cents per head for a breakfast

or dinner. A portion of the travel going to the southwest will continue to be, as it now is, diverted at this point, and carried by way of Savannah; on this portion the tavern keepers and omnibus owners will be certain of at least 75 cents per head. These are really and truly the only advantages which Charleston can derive from this road. But suppose that the road from Wilmington be made to terminate at some point on the railroad between Charleston and Columbia. The only difference would be that neither the tavern keeper nor the omnibus owner would make anything out of the passengers, and still not one pound of freight nor one dollar's worth of trade would be brought to Charleston by it. On the contrary, it is evident that some small amount of trade which now goes to Charleston, would be carried to Wilmington.

"Now let us see what will be the effect of extending the road from Raleigh, through Fayetteville and Cheraw to Camden. It must inevitably secure to Charleston the entire trade of that whole country, at least as far as Fayetteville, and from the country west of Fayetteville. This trade will add greatly to the prosperity of the city and to the revenue of the railroad.

"The travel from the city of Charleston north, will pay a revenue to their own road. This line being through a healthy country, will better answer the purpose of general travel, and being sustained by the local business of Raleigh, Fayetteville, Cheraw and Camden, will be more profitable than a line nearer the seaboard.

"The great stream of travel would then be secured to the South Carolina railroad without competition. C."

The above remarks from the Courier, are from a *correspondent* of that paper—and it is very evident that his inclinations, and perhaps his individual interest, lies in the direction of the *upper* route. That a material benefit will most assuredly accrue to the city of Charleston, by the establishment of the other route, none can question—though it is certainly difficult to determine *how much* profit may be realized from either. Still, *one of these roads must be established*, and those who are the most prompt to *act* in the premises, will be the parties who will be *first* and *most* benefitted by the enterprize. There can be but one opinion as to the utility and practicability of this great connecting link between the north and south, and we hope that measures will be taken at an *early* day to determine the question, and *move* in this matter so important to the interest of *all*.

Muscogee Railroad Meeting.

A meeting of the citizens of Columbus and its vicinity was convened at the court house on Saturday evening, the 22d August, 1846. On motion, Col. John Banks was called to the chair, and Wm. P. Yonge appointed secretary.

His honor the mayor, after explaining the object of the meeting, had read the letters received by him from Thomas Pollard, president of the Montgomery and West Point railroad company, John P. King, president of the Georgia railroad company, and Thos. Gadsden, president of the Charleston and Hamburg railroad company, which were in reply to *his* invitation to those gentlemen to attend a meeting at this place, for the purpose of ascertaining their views in relation to a connection of the contemplated railroad with the Montgomery and West Point railroad, and the Georgia, Central, and Macon and Western railroads.

The meeting was then addressed by the following gentlemen, viz: John G. Winter, Esq., R. R. Cuyler, Esq., president of the Central railroad company, and Dan'l Tyler, Esq., president of the Macon and Western railroad company, also by Gen. McDougald, who called upon the chairman for his views: whereupon he addressed the meeting in a few interesting remarks. Major Williams then made a few preparatory remarks, and offered the following preamble and resolutions which were unanimously adopted,

The great enterprize in which the state of Georgia has exhausted her resources, and entailed a debt of some magnitude upon her citizens, being now nearly completed, it may not be unimportant to examine very summarily the influence which it is likely to wield upon the great interests of this state. The original plan upon which the state of Georgia prosecuted the immense expenditure of public money in her Cherokee railway, contemplated that Augusta, Savannah and Columbus would connect with it by railroads from each of those cities, and we have seen that the two former have done so, by the completion of immense works, which do honor to them and the companies engaged therein.

The great Central road from Savannah to Macon, and the Macon and Western road from Macon to Atlanta, have fully realized to the people of Georgia all the advantages which were contemplated, and while they afford ready facilities to the merchant and planter, the profits are kept within the state; an object which is much to be desired in all great works of internal improvement by a state or its citizens. As much cannot be said of the Georgia railroad. It is true that equal facilities are afforded to the planter, but that road in connection with the South Carolina railway, make a constant drain from the state of Georgia, for the benefit of South Carolina.—Important considerations for the people of Columbus, who have so long slumbered over their interests, and should induce them speedily to make an energetic effort to carry out their part of the great original plan contemplated by the legislature of Georgia. In view of this effort, the Muscogee railroad company has been chartered, and whether the times be propitious or not for entering into this enterprize, it must be done as a work of necessity to our self-preservation. In comparison with what has been done by other companies in the state, the work which remains for Columbus to do, is a small one. A line of road 70 miles in length will give to this city all the advantages afforded by the Georgia, Central, and Macon roads, at the expense of less than one million of dollars! Ought we then longer to hesitate? Our actual interests and necessities admonish us that we ought not.—Be it therefore,

Resolved, That this meeting recommend to the Muscogee railroad company immediately to organize and proceed to open books of subscription at Columbus, Talbotton, and Thomaston, and such other places as may be deemed necessary for the purpose of receiving subscriptions to the stock of said company.

Resolved, As the opinion of this meeting, That the Central and Macon roads have a deep interest in the speedy completion of a railroad from this city to Barnesville, and that said companies and their individual stockholders be requested to afford such subscriptions to the stock of this company as their interest may deem to require.

Resolved, That in the opinion of this meeting, the road from this city to Barnesville should be placed under immediate construction, and that it ought to be completed by the 1st day of November, 1847.

On motion, Resolved, That the proceedings of this meeting be published in the Gazettes of this city.

The meeting then adjourned *sine die*.

JOHN BANKS, *Chairman.*

WM. P. YONGE, *Secretary.*

Pennsylvania Coal.—It is no uncommon thing now to see boat loads of Pennsylvania coal passing from the west. It reaches the Erie canal from the new avenues lately opened in western Pennsylvania, and bids fair to become quite an article of trade

The Anthracite Coal Trade.

Continued from page 573.

First, or South Anthracite Region.—Lehigh District.—The coal basin at Tamaqua in which is situated the estate of the Little Schuylkill navigation and railroad, and coal company, with coal lands of Messrs. Buck and Co., Levan and others, is bounded on the north by Locust mountain, and south by Sharp or Tuscarora mountain.

In crossing the coal basin, the stream of the Little Schuylkill runs at a right angle to the range of the stratification, and the gaps formed in the mountains of its north and south boundaries, afford an opportunity to enter the coal veins where they cross these gaps, giving workable breasts from 400 to 600 feet above the water level.

A stream called the Wabash, which rises about three miles west of the town of Tamaqua, runs through the coal valley east of the Little Schuylkill. Another stream heads north of the Summit Hill coal mine and runs through the coal basin, west of the Little Schuylkill. The confluence of both of these streams, with the Little Schuylkill is at Tamaqua.

In the Locust mountain gap, the coal and iron ore veins are developed and worked as follows: commencing with the lowermost, or the coal vein that crops out to the surface fartherest north on the mountain, proceeding south towards the centre of the basin.

No. 1, coal vein, said to be six feet in thickness including slate, but it has not been sufficiently opened to give its true character.

No. 2, coal vein, locally called A vein, this is said to be six feet in thickness, it has been worked several hundred feet into the mountain east of gap.

No. 3, coal vein, locally called B vein.—The place where this vein crosses the gap is

much washed and broken, it has not therefore yet been opened by drift. A shaft was sunk upon the vein on the mountain east of the creek which proved very satisfactory.

From the large and well marked depression in the place of its outcrop, along the side of the mountain, we may refer that a workable vein of coal may be found in this direction. It is my opinion that two veins of coal outcrop in this depression, and from the quantity of iron ore lying on the surface along the range of this depression it may be presumed that a workable vein lies near the coal.

No. 4, vein of coal locally called C vein, worked in the mountain east of the stream, said to be six feet in thickness.

No. 5, vein of coal locally called D vein, this contains a top bench of coal 4½ feet in thickness, and a bottom bench of coal of 3 feet in thickness; between these benches of coal is 1½ feet of dirt overlying the D vein of coal and separated from it by 2 feet of rock, is a vein of coal 3 feet in thickness called the outvein. These two veins are worked by one drift, on the east side the gap, on the west side the cross cut vein has not been discovered. The D vein is being extensively worked in the mountain on both sides the gap; it is very regular, and has hitherto proved free from fault.

No. 6, vein of coal locally called E vein, is about 23 fect in thickness between its top and bottom slate—it comprises the following strata: Top coal 3 feet thick, slate parting 1 foot, good coal 4 feet, slate parting 1 foot, superior glassy coal 6 feet, parting 1 foot, middling coal 2 feet, and bottom coal 3 feet. This vein is being worked on both sides the gap, regular and free from fault; underlying the E vein of coal is 2 feet of Nodular iron ore.

No 7, vein of coal locally called F vein, contains, top 1 foot of dirt, then 6 feet of solid hard glassy coal, underneath this is 1 foot of dirt, and 3 feet of coal at bottom. This coal vein is being worked on both sides the gap and proves well.

The whole of the before described coal veins, are of the white ash class.

No. 8, vein of coal is gray ash; it has not been opened by drift sufficiently to prove its thickness. I think from appearances it may be considered to contain say 4 feet of marketable coal. The outcrop of this vein is upon the line between the Baum track, and the Little Schuylkill estate, see situation on my small map of the First or South Anthracite Region.

No. 9, vein of coal is red ash. This has been opened and worked in the Baum tract, it contains about 2 feet of marketable coal.

No. 10, vein of coal is red ash, 6 feet in thickness, superior coal, this is being considerably worked in the Baum tract vein, the property of C. Levan, Esq.

No. 11, vein of coal is red ash, containing about 3 feet of marketable coal; it has been worked in the Baum tract.

The veins of coal and iron ore before enumerated dip to the south at an angle of 65 to 70 degrees.

From surface indications, I am led to believe that another vein of coal and perhaps two more exist north of those already described. Some distance south of the vein No. 11, two perpendicular veins of coal show themselves on the side of the hill where a range of perpendicular strata is seen. These veins have not been opened, and from their appearance I do not consider they will pay to work—the one shows about 6 feet of coal and slaty matter, the other is small. Still farther south is a coal vein inclining slightly from the perpendicular toward the north. This vein has been worked on both sides the stream of the Schuylkill. It is about 6 feet in thickness and a red ash.

In crossing the coal valley, after passing the range of perpendicular strata, the measures undulate until we approach the range of coal veins of the Sharp or Tuscarora mountain.—These are supposed to be the uprising to the south of the veins before described of the Locust mountain range which uprise to the north from the centre of the coal basin, thus forming the two boundaries. The coal basin in one place is one mile and ⅜ of a mile wide.

The coal veins before enumerated, No. 1 to No. 11, inclusive are at Tamaqua within the space of 570 yards, measuring across the range of the strata. The same range of coal veins at Silver creek on the Valley Furnace estate, occupy a space of one mile.

W. F. Roberts,
Engineer of Mines, Phila.

Durability of Timber in a Wet State.

A week or two since, the authorities of Philadelphia received a report from a committee of the city council, in relation to the repairs of bridges, sewers, etc., in that city. The report recommends that wherever any foundation is to be laid, that it be placed upon *timber imbeded in clay*. It was contended by the committee that this foundation was lasting, and of the most permanent character; in evidence of which, the timber foundations of Pratt street bridge had been examined, and were found to be perfectly sound, after being in the water upwards of fifty years. This fact is fair proof in regard to the durability of timber, when completely immersed in water and earth, and we are inclined, from other evidences also, to agree with the committee. It has been preferred to a *granite* foundation, even—and there can be no doubt that this will answer an admirable purpose. An exchange paper contains the annexed remarks on this subject.

"Of the durability of timber in a wet state, the piles of the bridge built by the Emperor Trajan across the Danube, is one example. One of these piles was taken up and found to be petrified to the depth of three-quarters of an inch; but the rest of the wood was little different from its ordinary state, though it had been driven more than sixteen centuries.

"The piles under the London bridge have been driven about six hundred years, and from Mr. Bann's observations, in 1746, it does not appear that they were materially decayed. In 1819, they were sufficiently sound to support the massive superstructure. They are chiefly of elm.

"In digging away the foundation of old Savoy palace, London, which was built six hundred and fifty years ago, the whole of the piles, consisting of oak, elm, beach and chestnut, were found in a state of perfect soundness; as also was the planking which covered the pile heads.

Communication with the Pacific.

We find in a late English Journal that the British government has granted $100,000 per annum to the royal company of Atlantic steamers, for the establishment of a post route to the Pacific, across the Isthmus of Panama.

"Each month a steamer will depart from Panama for Valparaiso and Lima, touching at Guayaquill, Payta, Lambayique, Huanchaco, Cosmo, Callao, Pisco, Islay, Arica, Iquique, Cobija, Copiapa, Huasco and Coquimbo, arriving at Valparaiso the 24th or 25th of every month. The company at London have published the following notice: A steam packet will leave Southampton the 17th of every month, and, by the way of Jamaica, proceed to Chagres, where letters and passengers will arrive the 20th or 21st of the following month. The price of passage is, for a forward state room, $250; for an after state room, $300; this price includes everything except wines and liquors. At Chagres the vessel will stop for the discharge of passengers and letters destined to ports on the Pacific. On return, with passengers and mail, the steamers touch at Jamaica, Havana and the Burmudas. At Havana, the passengers from Chagres, who have paid $80, find a steamer departing every month for New Orleans, and packets to New York. Mr. Perry, the English consul at Panama, is the agent of the company. The rate of freight for precious metals, monies or ingots, comprising all expenses across the isthmus, and to their delivery at the Bank of England, is ¾ per cent. For precious stones of all species, unwrought and paying no duty, the freight is 2¾ per cent. ad valorem, payable as before; on jewelry, subject to duty, and delivered at Southampton, the freight is 2½ per cent."

A Brilliant Whitewash.

As many of our readers may have occasion to make use of whitewash at times, we annex below a receipt from the Augusta Chronicle, for making it in such a way as will render it very durable, and difficult to rub off. If it is desired to *color* it, it is only necessary to add sufficient *dry* color, of such a tint as is wanted, when the wash is prepared, and it will be found to be an excellent and cheap composition for ordinary uses.

Take half a bushel of nice unslacked lime, slack it with boiling water, covering it during the process to keep in the steam. Strain the liquor through a fine sieve or strainer, and add to it a peck of clean salt, previously dissolved in warm water; three pounds of rice, ground to a thin paste, and stirred and boiled hot; half a pound of powdered Spanish whiting, and a pound of clean glue, which has been previously dissolved by first soaking it well, and then hanging it over a slow fire in a small kettle, within a larger one, filled with water. Add five gallons of water to the whole mixture, stir it well, and let it stand a few days covered from the dirt. It should be put on quite hot; for this pur-

pose it can be kept in a kettle on a portable furnace. It is said that about one pint of this mixture will cover a square yard upon the outside of a house if properly applied.—Brushes, more or less small, may be used according to the neatness of the job required. It retains its brilliancy for many years; there is nothing of the kind that will compare with it either for inside or outside walls.

OFFICE NEW YORK AND ERIE RAILROAD CO., 45 Wall Street, New York, Aug. 28, 1846.

NOTICE IS HEREBY GIVEN, THAT PROposals will be received until the 13th day of October next, for the Grading, Masonry and Bridging required to complete that portion of the New York and Erie Railroad between a point three miles east of Port Jervis in Orange county, and the village of Binghampton in Broome county, a distance of about 133 miles.

Maps and profiles, estimates and specifications, will be found after the 10th of September in the office of the company, at New York city, where every necessary information will be given. The engineers on the line of the road will also furnish all requisite facilities to contractors desirous of examining the route.

The line will be divided into sections of convenient length for construction, and proposals in writing will be received at the New York office for the whole or any part of the work. By order of the President and Directors.

6t36 T. S. BROWN, Chief Engineer.

ST. LAWRENCE AND ATLANTIC RAILroad.—Notice to Contractors.—Proposals will be received at the office of ths St. Lawrence and Atlantic Railroad Company, No. 18 Little James Street, in the City of Montreal, until the 24th of September next, for the Grading, Masonry and Bridging, of a division of the Road, extending from the St. Lawrence River to the Village of St. Hyacinthe, a distance of about 30 miles.

Plans, Profiles and Specifications will be exhibited, and the requisite information given at the Engineer's Rooms in the Company's Offices, at Montreal, on or after the 15th of said month.

Persons offering to contract for the work, or anv part of it, will be required to accompany their proposals with satisfactory references.

By order of the Board,

THOMAS STEERS, *Secretary.*

Office of the St. Lawrence and Atlantic R. R. Co., 3t36 Montreal, 25th August, 1846.

NEW YORK AND ERIE RAILROAD CO. The stockholders of the New York and Erie Railroad Company are hereby notified that an instalment of Five Dollars per share on all shares on which the payments already made do not exceed 20 dollars, is required to be paid, (agreeable to the terms of subscription) at the office of the company, No. 45 Wall street, on or before the 1st day of October next. By order of the Board of Directors.

NATHANIEL MARSH, Sec'y.

New York, August 31st, 1846. 4t36

THE SUBSCRIBER IS PREPARED TO execute at the Trenton Iron Works, orders for Railroad Iron of any required pattern, and warranted equal in every respect in point of quality to the best American or imported Rails. Also on hand and made to order, Bar Iron, Braziers' and Wire Rods, etc., etc.

PETER COOPER, 17 Burling Slip.

1y10 New York.

A. & G. RALSTON & CO., NO. 4 South Front St., Philadelphia, Pa.

Have now on hand, for sale, Railroad Iron, viz:
180 tons 2½ x ½ inch Flat Punched Rails, 20 ft. long.
25 " 2½ x ½ " " Flange Iron Rails.
75 " 1 x ½ " " Flat Punched Bars for Drafts in Mines. A full assortment of Railroad Spikes, Boat and Ship Spikes. They are prepared to execute orders for every description of Railroad Iron and Fixtures. 1t

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TO LOCOMOTIVE AND MARINE ENgine Boiler Builders. Pascal Iron Works, Philadelphia. Welded Wrought Iron Flues, suitable for Locomotives, Marine and other Steam Engine Boilers, from 2 to 5 inches in diameter. Also, Pipes for Gas, Steam and other purposes; extra strong Tube for Hydraulic Presses; Hollow Pistons for Pumps of Steam Engines, etc. Manufactured and for sale by

MORRIS TASKER & MORRIS,

Ware-House S. E. corner 3d and Walnut Sts., Philadelphia 1tf

MACHINE WORKS OF ROGERS, Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works beingexten sive and the number of hands employed beinglarge, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery

of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,

a45 Paterson, N. J., or 60 Wall street, N. York.

Valuable Works on Engineering for Sale.

The following works, belonging to the late Wm. R. Casey, have been deposited at this office for sale. It will be seen that they comprise most of the standard books. The reports and non-enumerated pamphlets are however among the best part of the collection, as many of them are not to be found or purchased at any price. So desirable an opportunity seldom offers for securing an excellent set of professional works.

LIST OF ENGINEERING BOOKS BElonging to W. R. Casey, deceased.

1.—The Civil Engineer and Architect's Journal, quarto, vols. 1, 2, 4, 5 and 6, and nos. 79 to 81, and 84 to 95—remaining numbers expected from Montreal, Canada.
2.—Railroad Journal, quarto, vols. 1, 2, 3; octavo, vols. 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 and 17; octavo vols. 18, and loose nos. to date; being nearly a complete set.
3.—Reports and Documents, 6 or 7 octavo vols.
4.—Tredgold's Carpentry, quarto, with plates.
5.—Barlow on Strength and Stress of Timber, octavo, with plates.
6.—Turnbull on Iron, octavo.
7.—Nicholson's Masonry and Stone Cutting, octavo, with plates.
8.—Tredgold's Tracts on Hydraulics, octavo, with plates.
9.—Gregory's Mathematics for Practical Men, octavo, with plates.
10.—Wood on Railroads, octavo.
11.—Pambour on Locomotives, octavo, with plates, (Philadelphia edition.)
12.—Lecount on Railroads, octavo, with plates.
13.—Smeaton's Tracts, 1796, octavo, with plates.
14.—Seward's New London Bridge, octavo, with plates.
15.—Storrow's Treatise on Water Works, duodecimo.
16.—Report on Atmospheric Railway, etc., quarto, with plates.
17.—Gallier's Price Book and Estimator, octavo.
18.—Public Works of Great Britain, folio, $25.
19.—Weale's Bridges, new and valuable, $23.

☞ The above books will be sold by the single volume, if desired, and forwarded by express, or otherwise, as directed by the purchaser.

Please address E. HEDGE, *Railroad Journal Office,*

36tf 23 Chambers street, New York.

PATENT INDESTRUCTIBLE WATER Pipes. The subscribers continue to manufacture the above PIPES, of all the sizes and strength required for City or Country use, and would invite individuals or companies to examine its merits.—This pipe, unlike cast iron and lead, imparts neither color, oxide or taste, being formed of strongly riveted sheet iron, and evenly lined on the inside with hydraulic cement. While in the process of laying, it has a thick covering externally of the same—thus forming nature's own conduit of stone. The iron being thoroughly enclosed on both sides with cement, precludes the possibility of rust or decay, and renders the pipe truly *indestructible.* The prices are less than those of iron or lead. We also manufacture Basons and D. Traps, for Water Closets, on a new principle, which we wish the public to examine at 112 Fulton street, New York.

28tf J. BALL & CO.

KEARNEY FIRE BRICK. F. W. BRINLEY, Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to

James P. Allaire, Peter Cooper, Murdock, Leavirt & Co. } New York.
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N. E. Screw Co. Eagle Screw Co. } Provicence, R. I.
William Parker, Supt. Bost. and Worc. R. R.
New Jersey Malleable Iron Co., Newark, N. J.
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25,000 to 30,000 made weekly. 35 1y

RAILROAD IRON.—THE SUBSCRIBER'S New Rail Iron Mill at Phœnixville, Pa., is expected to be ready to go into operation by the 1st of September, and will be capable of turning out 30 to 40 tons or finished Rails per day. They are now prepared to receive orders to that extent, deliverable after the 1st of Octobet next, for heavy rails of any pattern now in use, equal in quality and finish to best imported.

PIG IRON —They are also receiving weekly 150 to 200 tons of No. 1 Phœnix Foundry Iron, well adapted for light castings.

REEVES, BUCK & CO,
45 North Water St., Philadelphia,
or by their Agent, ROBT. NICHOLS,
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RAILROAD SCALES.—THE ATTENtion of Railroad Companies is particularly requested to Ellicotts' Scales, made for weighing loaded cars in trains, or singly, they have been the inventors, and the first to make platform scales in the United States; supposing that an experience of **20** years has given a knowledge and superior advantage in the business.

The levers of our scales are made of wrought iron, all the bearers and fulerums are made of the best cast steel, laid on blocks of granite, extending across the pit, the upper part of the scale only being made of wood. E. Ellicott has made the largest Railroad Scale in the world, its extreme length was one hundred and twenty feet, capable of weighing ten loaded cars at a single draft. It was put on the Mine Hill and Schuylkill Haven Railroad.

We are prepared to make scales of any size to weigh from five pounds to two hundred tons.

ELLICOTT & ABBOTT.

Factory, 9th street, near Coates, cor. Melon st.
Office, No. 3 North 5th street,
1y25 Philadelphia, Pa.

SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engagep in manufacturing Spring Steel from 1½ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, *Agent,*
1y Albany Iron and Nail Works,

VALUABLE PROPERTY ON THE MILL Dam For Sale. A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 fe. with lathes, work benches,

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side o Parker st., containiug 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide

For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & Co., Philadelphia. ja45

TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

PASCAL IRON WORKS.

WELDED WROUGHT IRON TUBES

From 4 inches to ⅛ in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T's, L's, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.

Manufactured and for sale by

MORRIS, TASKER & MORRIS.

Warehouse S. E. Corner of Third & Walnut Streets,

PHILADELPHIA.

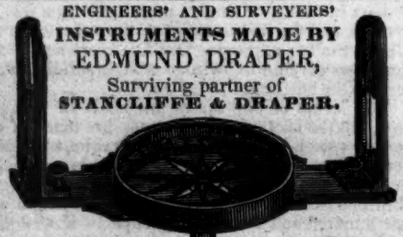
ENGINEERS' AND SURVEYERS'

INSTRUMENTS MADE BY

EDMUND DRAPER,

Surviving partner of

STANCLIFFE & DRAPER.



No 23 Pear street, below Walnut,
1y10 near Third, Philadelphia.

THE SUBSCRIBERS, AGENTS FOR the sale of

Codorus,
Glendon,
Spring Mill and
Valley,

} Pig Iron.

Have now a supply, and respectfully solicit the patronage of persons engaged in the making of Machinery, for which purpose the above makes of Pig Iron are particularly adapted.

They are also sole Agents for Watson's celebrated Fire Bricks and prepared Kaolin or Fire Clay, orders for which are promptly supplied.

SAM'L. KIMBER, & CO.,
59 North Wharves,
Jan. 14, 1846. [1y4] *Philadelphia, Pa.*

ENGLISH PATENT WIRE ROPES—FOR THE USE OF MINES, RAILWAYS, ETC.—for sale or imported to order by the subscriber.

These Ropes are manufactured on an entirely different principle from any other, and are now almost exclusively used in the collieries and on the railways in Great Britain, where they are considered to be greatly superior to hempen ones, or iron chains, as regards safety, durability and economy. The plan upon which they are made effectually secures them from corrosion in the interior, as well as the exterior of the rope, and gives a greater compactness and elasticity than is found in any other manufacture.

Many of these ropes have been in constant operation in the different mines in England, and on the Blackwall and other inclined planes, for three and four years, and are still in good condition.

They have been applied to almost every purpose for which hempen ropes have been used—mines, heavy cranes, standing rigging, window cords, lightning conductors, signal halyards, tiller ropes, etc. Reference is made to the annexed statement for the relative strength and size. Testimonials from the most eminent engineers in England can be shown as to their efficiency, and any additional information required respecting the different descriptions and application will be given by

ALFRED L. KEMP,
75 Broad street, New York, sole agent in the United States.

Statement of Trial made at the Woolwich Royal Dock Yard, of the Patent Wire Ropes, as compared with Hempen Ropes and Iron Chains of the same strength.—October, 1841.

WIRE ROPES.				HEMPEN ROPES.			CHAINS.		STRENGTH.
Wire gauge number.	Circumference of rope.	Weight per fathom.		Circumference of rope.	Weight per fathom.		Weight per fathom.	Diameter of iron.	Tons.
	INCH.	LBS.	OZ.	INCH.	LBS.	OZ.	LBS.	INCH.	
11	4⅛	13	5	10	24	–	50	15-16	20
13	3¼	8	3	8¼	16	–	27	11-16	13½
14	3⅛	6	11	7¼	12	8	17	9-16	10½
15	2⅝	5	2	6¼	9	4	13½	1-2	7½
16	2⅜	4	3	6	8	8	10½	7-16	7

N.B. The working load, with a perpendicular lift, may be taken at 6 cwt. for every lb. weight per fathom, so that a rope weighing 5 lbs. per fathom would safely lift 3360 lbs., and so on in proportion. 1y24

NICOLL'S PATENT SAFETY SWITCH for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee G. A. NICOLLS,
ja45 *Reading, Pa.*

LAWRENCE'S ROSENDALE HYDRAulic Cement. This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Flooms and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE,
142 Front street, New York.

☞ Orders for the above will be received and promptly attended to at this office. 32 1y

GEORGE VAIL & CO., SPEEDWELL IRON Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1¼ in. to 2½ in thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descripions.t

BALLARD'S NEWLY IMproved Patent Jack Screw.

The advantages of this Jack Screw for Stonequarries, Railroads, Steam Boiler Builders, and other purposes, are superior to any other machine.

The improvement consists in being able to use either end of the Screw, as occasion requires.

It is capable of raising the heaviest Locomotive with ease, being portable, strong and powerful, and not likely to get out of order.

Many Railroad Companies and Boiler makers have them in use, by whom they are highly recommended.

JACK SCREWS of various kinds, sizes, power and price, constantly on hand at the manufactory, No. 7 Eldridge St.,
4t35 near Division.

We the undersigned have used Ballard's Jack Screw on our Railroad and for other purposes, and we consider them superior to any other machine that we have had. GEO. B. FISK,
Prest. Long Island Railroad Co.
TIMOTHY L. SMITH,
Agent New Jersey Railroad Co.
H. R. DUNHAM & CO.,
Locomotive and Steam Engine Builders.
GEO. VAIL & CO.,
Speedwell Iron Works, Morristown, N. J.

LAP—WELDED

WROUGHT IRON TUBES

FOR

TUBULAR BOILERS,

FROM 1 1-4 TO 6 INCHES DIAMETER,

and

ANY LENGTH, NOT EXCEEDING 17 FEET.

These Tubes are of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.

THOMAS PROSSER,
Patentee.
28 Platt street, New York.

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, *Agent.*

Albany Iron and Nail Works, Troy, N. Y.

The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co. Boston. ja45

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

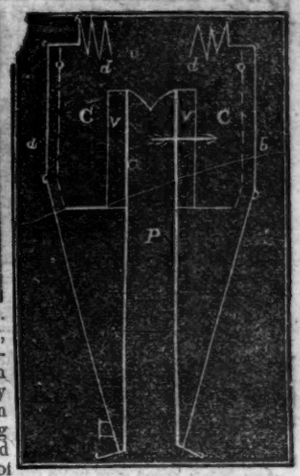
All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, *Agent.*

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

*** Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufcturing so as to keep pace with the daily increasing demand. ja45

FRENCH AND BAIRD'S PATENT SPARK ARRESTER.



TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

R. L. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendant Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendant Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich; G. B. Fisk, President Long Island Railroad, Brooklyn.

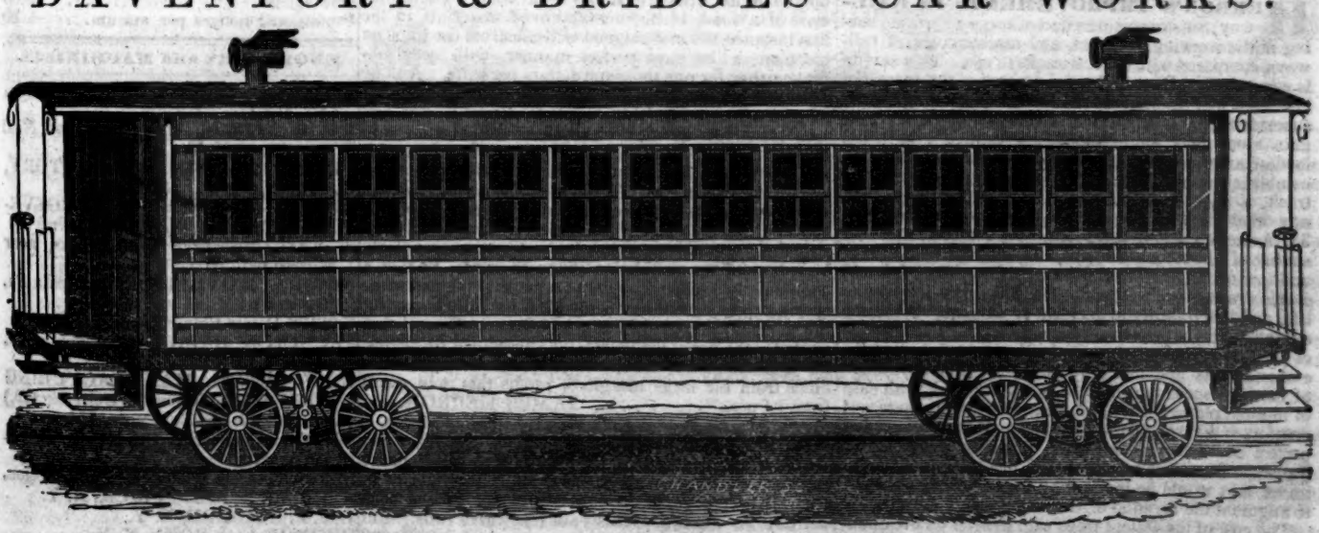
Orders for these Chimneys and Arresters, addressed to the subscribers, care Messrs. Baldwin & Whitney, of this city or to Hinckly & Drury, Boston, will be promptly executed. FRENCH & BAIRD.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms. *Philadelphia, Pa., April 6*, 1844.

*** The letters in the figures refer to the article given in the *Journal* of June, 1844. ja45

BENTLEY'S PATENT TUBULAR STEAM BOILER. The above named Boiler is similar in principle to the Locomotive boilers in use on ou Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Paten Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

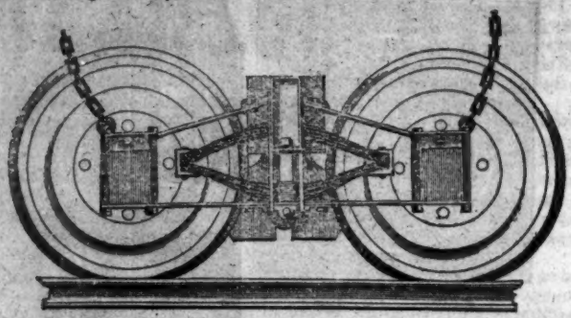
DAVENPORT & BRIDGES' CAR WORKS.



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS. Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All orders punctually executed and forwarded to any part of the country

Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minues. 1y1

RAY'S EQALIZING RAILWAY TRUCK.—THE SUBSCRIber having recently formed a business connection in the City of New



York, expressly for the manufacture of the newly patented and highly approved Railroad Truck of Mr. Fowler M. Ray, is ready to receive orders for building the same, from Railroad Companies and Car Builders in the United States, and elsewhere.

The above Truck has now been in use from one to two years on several roads a sufficient length of time to test its durability, and other good qualities, and to satisfy those who have used it, as may be seen by reference to the certificates which follow this notice.

There have been several improvements lately introduced upon the Truck, such as additional springs in the bolster of passenger cars, making them delightful riding cars—adapting it to tenders, trucks forward of the locomotive, and freight cars, which, with its original good qualities, make it in all respects the most desirable truck now offered to the public.

Orders for the above, will, for the present, be executed at the New York Screw Mill, corner 33d street and 3d avenue, (late P. Cooper's rolling mills) and at the Steam Engine Shop of T. F. Secor & Co., foot of 9th street, East river, (of which firm the subscriber was late a partner) under the immediate supervision of Mr. Ray himself.

Several sets of trucks containing the latest improvements have recently been turned out for the New York and Erie railroad, and the New Jersey Transportation company, which may be seen upon said roads.

The patronage of Railroad Companies and Car Builders is respectfully solicited.

New York, May 4, 1846. W. H. CALKINS, and Others.

To all whom it may concern:—This is to certify that the New Haven, Hartford and Springfield railroad co., have had in use six sets of F. M. Ray's patent trucks for the last 20 months, during which time it appears to me, they have proved to be the bes and most economical truck now in use.

[Signed,] WILLIAM ROE, Sup't of Power.

I certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Philadelphia and Reading railroad for some time past, under a passenger car.

For simplicity of construction, economy in cost, lightness of material, and extreme ease of motion, I consider it the best truck we have ever used. Its peculiar make also renders it less liable to be thrown off the track, when passing over any obstruction. We intend using it extensively under the passenger and freight cars of the above road.

Reading, Pa., October 6, 1845. [Signed,] G. A. NICOLL, Sup,t Transportation, etc., Philadelphia and Reading Railroad.

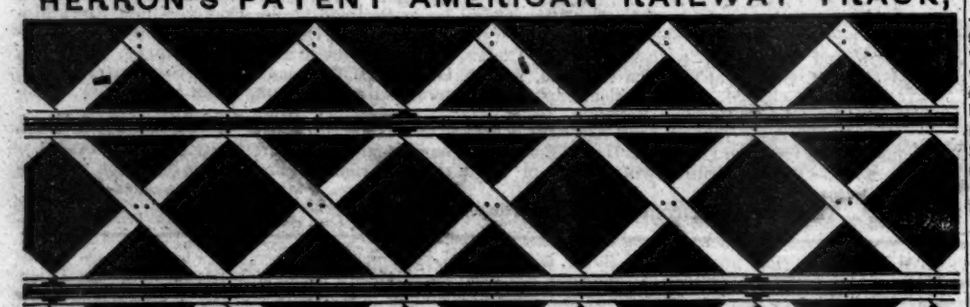
To all whom it may concern:—This is to certify that the N. Jersey Railroad and Transportation company have used Fowler M. Ray's Truck for the last seven months, during which time it has operated to our entire satisfaction. I have no hesitation in saying that it is the simplest and most economical truck now in use.

[Signed,] T. L. SMITH, *Jersey City, November* 4, 1845. N. Jersey Railroad and Transp. Co.

This is to certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Long Island railroad for the last year, under a freight car. For simplicity of construction, economy in cost, lightness of material and ease of motion, I consider it equal to any truck we have in use.

Long Island Railroad Depot, Jamaica November 12, 1845. } [Signed,] JOHN LEACH, 1y19 Sup't Motive Power.

HERRON'S PATENT AMERICAN RAILWAY TRACK,



As seen stripped of the top ballasting

HERRON'S IMPROVEMENTS IN RAILway Superstructure effect a large aggregate saving in the working expenses, and maintenance of railways, compared with the best tracks in use. This saving is effected—1st, Directly by the amount of the increased load that will be hauled by a locomotive, owing to the superior evenness of surface, of line and of joint. This gain alone may amount to 20 per cent. on the usual load of an engine.—2d, In consequence of the thorough combination, bracing, and large bearing surface of this track, it will be maintained in a better condition than any other track in use, at about one-third the expense.—3d, As action and reaction are equal, a corresponding saving of about two-thirds will be effected in the *wear* and *tear* of the *engines* and *cars*, by the *even surface* and *elastic structure* of the track.—4th, The great security to life, and less liability to accident or damage, should the engine or cars be thrown off the rails.—5th, The absence of jar and vibration, that shake down retaining walls, embankments and bridges.—6th, The great advantage of the high speed that may be safely attained, with ease of motion, reduction of noise, and consequently increased comfort to the traveller.—7th, The really *permanent* and perfect character of the Way, insuring regularity of transit. To which may be added the great increase of travel, that would be induced by the foregoing qualities to augment the revenue of the railroad.

The cost of the Patent track will depend on the quantity and cost of iron and other materials; but it will not exceed, even including the preservation of the timber, the average cost of the tracks on our principal railroads. Generally, the timber structure, fastenings and workmanship, exclusive of the cost of the iron rails, will be from $2,300 to $4,000 per mile. On this structure, rails of from 40 to 50 lbs. per yard, will be equal in effect to 60 and 70 lbs. rails laid in the usual way. The proprietors of a road, furnishing approved materials in the first instance, the undersigned will construct the track on his plan in the most perfect manner, with recent improvements, for one thonsand dollars per mile. And he will farther contract to maintain said track for the period of ten years, furnishing such preserved timber and iron fastenings as may be required, and keeping said track in *perfect adjustment*, under any trade not exceeding 100,000 tons per annum, or its equivalent in passenger transportrtion, for *Two hundred dollars per mile per annum.** To insure the faithful performance of this contract, he will pledge one-fourth of the cost of construction, with the accruing interest thereon, regularly vested, until the completion of the contract. So that a company, by securing payment to the undersigned at the specified period, will have only $750 per mile to pay for the workmanship on the track, without any charge being made for the use of the patent, the subsequent payments, for maintenance of way, and amount withheld, being made from the large margin of profits that will result from its use.

JAMES HERRON.
Civil Engineer and Patentee.
No. 277 *South Tenth St., Philadelphia.*

* A general average of the repairs done on six of the most successful railroads in this country, for a period of from six to eight years' use has been found to exceed $625 per mile per annum, exclusive of renewal of rails. But few roads in this country carry as much as 100,000 tons per annum. When a road exceeds that quantity, the repairs due to the additional tonnage, up to 200,000 tons, will be charged at one mill per ton; over the latter, and not exceeding 300,000 tons, nine-tenths of a mill, etc. Where there are two tracks to maintain, a large reduction upon those rates will be made. 1y1

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

RATES OF ADVERTISING.

One page per annum	$125 00
One column "	50 00
One square "	15 00
One page per month	20 00
One column "	8 00
One square "	2 50
One page, single insertion	8 00
One columnn " "	3 00
One square " "	1 00
Professional notices per annum	5 00

ENGINEERS and MACHINISTS.

THOMAS PROSSER, 28 Platt St. N.Y. (*See Adv.*)
I. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (*See Adv.*)
TROY IRON AND NAIL FACTORY, H. Burden, Agent. (*See Adv.*)
ROGERS, KETCHUM AND GROSVENOR, Patterson, N. J. (*See Adv.*)
S. VAIL, Speedwell Iron Works, near Morristown, N. J. (*See Adv.*)
NORRIS, BROTHERS, Philadelphia Pa. (*See adv.*)
KITE'S Patent Safety Beam. (*See Adv.*)
FRENCH & BAIRD, Philadelphia, Pa. (*See Adv.*)
NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (*See Adv.*)
ROSS WINANS, Baltimore, Md.
CYRUS ALGER & Co., South Boston Iron Company.
SETH ADAMS, Engineer, South Boston.
STILLMAN, ALLEN & Co., N. Y.
JAS. P. ALLAIRE, N. Y.
PHŒNIX FOUNDRY, N. Y.
ANDREW MENEELY, West Troy.
JOHN F. STARR, Philadelphia, Pa.
MERRICK & TOWNE, do.
HINCKLEY & DRURY, Boston.
C. C. ALGER, Stockbridge Iron Works, Stockbridge, Mass.